JOURNAL

OF THE

ANTHROPOLOGICAL SOCIETY

OF LONDON.

VOL. IV.

1866.

LONDON:
TRÜBNER & CO., 60, PATERNOSTER ROW.

LONDON: T. RICHARDS, 37, GREAT QUEEN STREET.

JOURNAL

OF THE

ANTHROPOLOGICAL SOCIETY OF LONDON

NOVEMBER 14TH, 1865.

JAMES HUNT, ESQ., PH.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

THE proceedings of the last meeting of the previous session were read and confirmed.

The following gentlemen have been elected Fellows of the Society since the vacation :—A. Mercer Adam, M.D., Boston, Lincolnshire; William Aspull, Esq., 5, Shrewsbury road, Bayswater; Captain R. Baring, 19th Hussars, 11, Berkeley square; Henry Walter Barlow, Esq., Lower Clapton, London, N.E.; Henry Thorowgood Barnes, Esq., 12, Middleton road, Camden road, N.; H. Beigel, Esq., M.D., 3, Finsbury square; John Bilderbeck, M.R.C.S., and L.M. England, Civil Surgeon of Cuddalore, Madras; Charles Booth, Esq., 16, Notting hill square; W. Brookes, Esq., Bank buildings, Newcastle, New South Wales; Edwin Brown, Esq., F.G.S., Hon. Sec. Midland Natural History Society, Burton-on-Trent; Captain John Harcourt Brown, R.N., 31, Bloomsbury street; Henry Burden, Esq., A.M., M.D., M.R.C.S., Demonstrator of Anatomy, Queen's College, Belfast, 10, Alfred street, Belfast; Robert Cæsar Childers, Esq., Cantley, Yorkshire; Samuel Chinnery, Esq., 146, The Grove, Camberwell; William Nathan Chipperfield, M.R.C.S., and L.A.C., Professor of Anatomy and Physiology in the Madras Medical College, Madras; William Henry Clans, Esq., Surgeon, Bonny, West Coast Africa; Hyde Clarke, Esq., LL.D., member of the German Oriental Society, of the Academy of Anatolia, of the Royal Society of Northern Antiquaries, of the Institution of Engineers of Vienna, Smyrna (Villa Falkenberg, Boujah-a-Azazieh, Turkey); F. L. Cotton, Esq., 4, King Edward's road, Hackney; Jonathan William Elmes, Commissariat Staff, Lagos, West Africa; John Hawley Glover, Lieut.-Governor of Lagos, Lagos; Arthur Gordon Gordon, Esq., Gaboon, W.A., and 13, Westbourne place, Victoria park, Clifton, Bristol; John Grattan, Esq., Mervue, Belfast; Upfield Green, Esq., 3, Clarendon villas, South Hackney; Rev. William Greenwell, M.A., Canon of Durham, Durham; Frederick Griffin, Esq., 1, Palace gardens, W.; Charles Harding, Esq., F.R.G.S., F.S.S., Colbert villa, Springfield road, St. John's Wood; William Harding, Esq., M.R.C.S., 4, Percy street, Bedford square; J. A. W. Harper, Esq., 23, Grosvenor road, Pimlico; Alfred G. Henriques, Esq., of the Middle Temple,

barrister-at-law, 2, Stone buildings, Lincoln's inn fields; Thomas Humble, Esq., M.D., M.R.C.S., 4, Eldon square, Newcastle-on-Tyne; Walter Hyslop, Esq., 29, Tredegar square, Bow road; Major George James Ivey, 4th West India Regiment, care of Messrs. Cox and Co., Craig's court, Charing cross, London; Henry Willan Jackson, Esq., M.R.C.S. England, 1, Cumberland terrace, Regent's park, N.W.; Henry Edward Jessop, Esq., M.R.C.S., Clarence parade, Cheltenham; M. W. Keene, Esq., Government Geologist and Inspector of Coal fields, Bank buildings, Newcastle, New South Wales; Major General William Lang, of H.M.'s Bombay Army, Langhouse, Inverkip, near Greenock, N.B.; John Lee, LL.D., F.R.S., V.P.R.A.S., F.L.S., F.G.S., F.S.A., F.R.G.S., Hartwell house, near Aylesbury; John Mackenzie, Esq., M.D., 62nd Regiment, Pembroke; Andrew McCallum, Esq., 4, Bedford gardens, Kensington; William McCoskey, Esq., Lagos, West Africa, and care of Burnett and Kidd, 4, Cook street, Liverpool; Arthur Mitchell, Esq., M.D., Laverock Bank, Trinity, Edinburgh; Thomas B. Moriarty, A.B., M.D., Staff Assistant Surgeon, 17, Whitehall place, London; Thomas F. Overman, Esq., Browning's lodge, near Tunbridge Wells; B. H. Paul, Esq., Ph.D., F.C.S., 8, Gray's inn square; George Peacock, Esq., M.D., M.A., Naval and Military Club, SW.; Henry Rudall, Esq., 164, The Grove, Camberwell; William Bridges Rowe, Esq., B.A., F.I.A., 77, King street, Manchester; James Sandale, Esq., M.D., 6th Dragoon Guards, Brighton; F. G. Seaman, Esq., M.D., F.R.G.S., 3, Villa road, St. Leonards; Henry Danby Seymour, Esq., M.P., 39, Upper Grosvenor street, W.; Mr. Joseph Shepherd, 29, Everton crescent, Liverpool; Dr. Frank Simpson, H.M. Medical Staff, Gold Coast; George Smith, Esq., Vandevelde house, St. Margaret's place, St. Leonards; John Stanton, Esq., student-at-law, Waterloo house, Chorley, Lancashire; D. W. Studart, Esq., H.M., Consul, Ceará; Thomas Tate, Esq., Loc. Sec. A.S.L. for Hastings, Ore, near Hastings; Thomas Tate, Esq., Surgeon on board the *Celæno* (trading to New Zealand); Samuel Timmins, Esq., Elvethan lodge, Edgbaston; Herbert Taylor Upher, Commissariat Staff, Lagos, West Africa; J. R. Wevill, Esq., 14, Almorah road, Downham road, Islington; Colonel Beauchamp Walker, R.A., 97, Onslow square; E. T. Wakefield, Esq., 40, Pembridge villas, Bayswater; James Alfred Wanklyn, Esq., F.C.S., Prof. Chemistry London Institution, London Institution, Finsbury circus; S. W. D. Williams, Esq., M.D., L.R.C.P. London, General Lunatic Asylum, Wolverhampton; R. Wilson, Esq., M.D., Tinnevelly, India—care of Messrs. Smith, Elder, and Co., Cornhill, London; E. G. Squier, Esq. (Honorary), New York.

The following Local Secretaries were elected:—Joseph Anderson, Esq., Wick, Caithness; Robert Campbell, Esq., Abbeokuta and Lagos, West Africa; James F. Draper, Esq., 13, Duhamel place, Jersey; M. C. Furnell, Esq., M.D., Cochin, Southern India; M. Alexis Fedchenko, Moscow; D. Antonio de Lacerda, San Salvador de Bahia, Brazil; Alexander Michie, Esq., F.A.S.L., Shanghae; George Petrie, Esq., Cor. Mem. Soc. Antiq. Scot., Kirkwall, Orkney; George Smith, Esq., Lerwick, Zetland.

The following list of presents received during the vacation was read:

—Address. Distribution of Prizes, St. Mary's Hospital, by Prof. Owen (the Author). José de Lacerda, Portuguese African Territories (the Author). Hutchinson, Buenos Ayres and Argentine Gleanings (W. Bollaert). Harvey, De Generatione Animalium (Dr. F. Royston Fairbank). Harvey, Works of, by Willis (Ditto). Die Materialistiche Weltauschauung Unzerenzeit (Prof. Hyrtl). Skull of Orang-outang, Simia Morio (J. B. Baxter, Esq.) Skull of Hova, etc. (Dr. Sampson Roch). Report British Association, 1864 (C. C. Blake). Complete set of Social Science Review (G. A. Hutchinson). Tratado de Vendages y Apositos (G. E. Roberts). Varenus, Descriptio Regni Japoniæ et Siam (Ditto). The North-west Passage, 2 parts (J. R. Brown, Esq.) A Plea for Urania (K. R. H. Mackenzie, Esq.) Transactions of the Society of Antiquaries of Scotland, complete set (the Society). Bulletins de l'Academie Royale de Belgique (the Academy). Journal of Asiatic Society of Bengal (the Society). Canadian Journal (the Editors). J. Van der Hoeven, Beschrijving Van Schedels Van In Boorlingen der Carolina Eilanden (the Author). Report of Hull Literary and Philosophical Society (the Society). Bulletin de l'Institut National Genevois (The Institute). Giornale di Scienze Naturale ed Economiche de Palermo (the Institution of Palermo). Results of Meteorological Observations (the Smithsonian Institution). Smithsonian Report (Ditto). Vocabulary of the Clallam and Lummi Language ; of the Mohawk ; of the Chinook ; of the Mikmaque ; of the Mutran and Gramnon ; of the Yokama ; of the Névome—Pima ; of the San Antonio Mission (Ditto). Rokitansky's Pathological Anatomy, 4 vols., 8vo. (Dr. Fairbank). Hecker : The Black Death in the Fourteenth Century (Ditto). New Sydenham Society : Selected Monographs (Ditto). Erasmus Wilson, Anatomist's *Vade-Mecum* (Ditto). On Synostotic Crania among Aboriginal Races of Man (Dr. B. Davis). Mémoires de la Société Impériale d'Emulation d'Abbeville (M. Boucher de Perthes). De la Femme dans l'Etat Social (Ditto). Antiquités Celtiques et Antediluvienne (Ditto). L'Homme Antediluvien et ses Œuvres (Ditto). Journal of the Royal United Service Institution (the Institution). Cholera : its Pathology, Diagnosis, and Treatment (Dr. W. Story). J. R. Bartlett : Personal Narrative of Explorations in Texas, etc. (Ditto). Leben u. Schriften des K. E. Von Baer (the Author). Van der Horn and van der Bos. De Mensch, 2 vols. (Prof. Van der Hoeven). Ethnological Journal, Nos. i-v. (L. Burke, Esq.) Journal of Asiatic Society of Bengal (The Society). Jubilee of Dr. Von Baer (the Author). Oberhessischen Gesellschaft, für Natur und Heilkunde (The Society). British Medical Journal, 1861-63 (Dr. Ryan Tenison). Music amongst the most ancient nations (Carl Engel, Esq.) Portrait of a female Zulu Kaffir (K. R. H. Mackenzie, Esq.) Flint Flakes, Cruyell, Devon ; and work descriptive of the same (N. Whitley, Esq., Penarth, Truro). Evidence, Abolition of Slave Trade (F. Royston Fairbank). P. Phœbus, Normas Cranioscopicas (Dr. Hunt). Steenstrup, Mennekeslaegters Tidligste Optraeder in Europa (Ditto). Skulls from Pavenham (Dr. Peacock). Bell, on Nervous System (J. W. Conrad Cox, Esq.) Transactions Royal Society of Victoria, 1861-64 (The Society). Clarke, Introduction to the Fernandian tongue (K. R. H.

Mackenzie). Foot and Hand of Negro Skeleton (E. Canton, Esq.) Ethnology and Phrenology (J. W. Jackson, Esq.) Works of James I. (Ditto). Lectures on Mesmerism (Ditto). Skull of a Native of Oude —Resident of Lucknow (Capt. Owen).

On the motion of the President thanks were voted to the donors.

Mr. CARTER BLAKE read a letter received from Mr. James Bonwick of Queensland.

"St. Kilda, Melbourne, Sept. 25, 1865.

"My dear Dr. Hunt,—I know from your zeal on behalf of the aboriginal races, that you would be an advocate for the poor Queensland blacks now being slaughtered, as it were, by authority I have, therefore, counselled my friend, Gideon Lang, Esq., to send to your kind care several copies of his pamphlet for distribution among the friends of the coloured races. His fearless exposure of the wrongs of our aborigines has created attention here. Mr. Lang is a man upon whose statement you may rely. One of our oldest colonists, he is one of the best educated amongst them. My son, now on a station five hundred miles north of Moreton Bay, gave me stories similar to those now told. Three months ago I took a trip to Queensland, and there heard much of this fearful and needless slaughter. Earnestly wishing you success in your public work, and heartily sympathising with you in your views and efforts, I am, yours truly,

"JAMES BONWICK."

The PRESIDENT observed that the pamphlets referred to in the letter had not yet arrived, but when they were received they would be distributed among the Fellows of the Society. He was glad to perceive that the Fellows of the Anthropological Society of London are recognised in Australia as real friends of the aboriginal races.

Report on the Anthropological Papers read at the Birmingham Meeting of the British Association for the Advancement of Science, September 1865. By C. CARTER BLAKE, Esq., F.G.S., F.A.S.L.

FOR the third time, it is my official duty to report to the Society the results of the efforts which were made at Birmingham, to secure the recognition of Anthropological Science before the British Association.

In conformity with my orders, I proceeded to Birmingham early on Friday, September 1st, and placed myself in communication with those Fellows of the Anthropological Society who resided at Birmingham. It is, however, necessary in the first place to explain the steps which were taken to obtain apartments for an Anthropological Congress, in case the authorities of the British Association declined to grant a separate section for Anthropology; and in the second place, to give the reasons why the plan of holding a separate congress was not adopted.

The following letter was addressed to the authorities at Queen's College, Birmingham, on the 16th August last:—

"Anthropological Society of London, 4, St. Martin's Place,
August 16, 1865.

"Gentlemen,—I am directed by the President and Council of the above Society to ask for the use of the Lecture Rooms, Library, and

College Hall of Queen's College, Birmingham, for the use of an Anthropological Congress which it is contemplated to hold in Birmingham, at the meeting of the British Association. Should the General Committee of the British Association appoint a special section, we may not require all the rooms I have mentioned, but we shall still be glad to have the use of the Lecture Room, and a place for the exhibition of a large number of rude stone implements recently discovered in Zetland, where explorations have been made for the Earl of Zetland and the Anthropological Society of London.

"I have the honour to be, Gentlemen,

"Your most obedient servant,

"C. CARTER BLAKE, Assist.-Secretary."

"To the Principal and Council of the Queen's College, Birmingham."

In reply to this application, the authorities of Queen's College unanimously resolved,—

1. "That this meeting has sincere satisfaction in placing the College Hall, Library, and Lecture Rooms at the service, free of charge, of the Anthropological Society, from Monday, Sept. the 4th, to Saturday, Sept. the 16th."

2. "That the Warden, the Dean of the Faculty, the Professors of Chemistry, of Anatomy, and of Physiology, with power to add to their number, do form a sub-committee to make the necessary arrangements for the reception of the Anthropological Congress."

It was consequently announced to the Fellows of the Anthropological Society in the circular of August 24th, that

"It has been for some time contemplated to hold an Anthropological Congress, should the proposal for a special Section not be carried. The Council are happy to state that they have already secured the free use of the Lecture Hall, Library, and College Hall of Queen's College, Birmingham, for this purpose from the Principal and Council of that College. The Council have also reason to hope that, should it be found necessary to adopt this course, they will have considerable local support from the people of Birmingham.

"We are instructed, however, to inform you that the Council have not arrived at any definite conclusion as to the holding of a Congress, but they have delegated the decision of this point to the President of the Anthropological Society, with full powers to do as may be considered best for the cause of Anthropological Science.

"Should the proposal for a special Section not be carried in the General Committee, we are requested by the President to ask for your attendance in the Library of Queen's College, Birmingham, immediately after the General Committee have come to a decision."

Having arrived at Birmingham and consulted with the other Fellows in that town, I gave orders that the apartments in Queen's College should be prepared for the congress; and I deposited therein the very large collection of stone implements and diagrams which relate to the recent investigations undertaken by the Society in Zetland. Copies of the Society's publications were presented to the Free Library at Birmingham. The delegates representing the Anthropological Society of London were—J. Frederick Collingwood, Esq., F.R.S.L., F.G.S.; H. J.

C. Beavan, Esq., F.R.G.S., Hon. Sec. Anthropological Society, London; William Travers, Esq., F.R.C.S.

On Wednesday, the 6th instant, at the meeting of the General Committee, the motion which stood in my name, "That a separate Section be formed, to be entitled Section H, and to be devoted to Anthropology," was formally moved by Dr. Hunt, our President. It was seconded by Rear-Admiral Sir Edward Belcher; and a long discussion arose thereon, to which I need only advert by saying that a report of the speeches will be found in the last number of the *Anthropological Review.*

To this proposition an amendment was moved by Dr. Perceval Wright, seconded by Mr. A. R. Wallace, in favour of the redistribution of the science of man amongst the existing Sections. Dr. Wright's amendment was to the effect "That Subsection D be henceforth devoted to human physiology and ethnology."

Another counter-amendment was then proposed by Dr. Lee (of Hartwell), and seconded by myself, "That Subsection D be devoted to human physiology, ethnology, and anthropology."

After a very disorderly discussion, and much confusion, both these amendments were put to the vote, and rejected. The original motion proposed by Dr. Hunt was also rejected on a division, the numbers apparently being about fifty votes in favour, and seventy against.

A motion was then proposed by Professor Phillips, seconded by Mr. Francis Galton, which ran as follows:—

"That in future, all proposals for establishing new Sections, altering the titles of existing ones, or making any other change in the constitutional forms and fundamental rules of the Association be referred to the Recommendation Committee for a report."

This resolution was carried almost unanimously.

According to notice, the Fellows of the Anthropological Society, after this adverse decision of the General Meeting, held a Meeting of Congress the same afternoon in the apartments of Queen's College; George Dawson, Esq., M.A., in the chair. The feeling of this meeting was shown unanimously in the words of the Chairman, "That the scene of which all the members of the congress had been recently witnesses clearly showed that the petty jealousies which prevailed in the British Association General Committee were too great to permit any present practical progress for Anthropological Science." Dr. Hunt having briefly recapitulated the motions which had been submitted to the General Committee, and the results which had attended them, it was resolved that a deputation wait upon the Sectional Committee of Section E, with a view to ascertain what papers on the subject of Anthropology would be acceptable to that Section.

This deputation, consisting of Messrs. Reddie, Pike, Brady, and myself, accordingly attended the Sectional Committee Meeting of Section E, and Sir Henry Rawlinson, who was in the chair, having referred the matter to Mr. John Crawfurd, that gentleman marked a list of the papers submitted by the Anthropological Society, and expressed on the part of the Committee of Section E their readiness to admit the papers so marked to be read before the meeting of Section E.

It being felt by the Congress that the small number of papers marked (only eight out of forty-three) rendered the chance of adequate recognition of Anthropology in Section E very small; a second deputation, consisting of Messrs. Travers, Pike, and myself, was sent to Section D. This Section was not then sitting, but the Secretary (Dr. Perceval Wright) marked on the list those papers which he thought would be eligible for Section D, and he also suggested that your reporter should wait on the Committee at its next formal sitting, to elicit the expression of their opinion. The next day I attended this Committee Meeting of Section D. A strong desire was expressed by some of its members, that the following Monday, Tuesday, and Wednesday, should be devoted to reading the papers of the Anthropological Society, and that as Section D (Zoology and Botany) had but few papers of its own to read, its members would be very glad to receive the Anthropological Society's list of papers as a whole. A motion was then proposed to the effect that the list of marked papers submitted by the Anthropological Society be received "as a whole," subject to the understanding that any individual paper unsuitable to Section D might be rejected. A discussion arose on this motion before the Committee of Section D, when eventually it was withdrawn, and that Section in answer to the formal application of the delegates of the Anthropological Congress, declined to place any formal resolution on their notice-book.

I now give a list of the papers submitted, indicating the eight whose titles were accepted by Section E, and the twenty whose titles were accepted by Section D.

The following was the list of Anthropological papers to be submitted to the Anthropological Section H at the Meeting of the British Association at Birmingham :—

Papers marked * agreed to be accepted by Section D ; papers marked † agreed to be accepted by Section E; papers marked ‡ read before the Association.

† Dr. James Hunt, F.S.A., Pres.A.S.L. Report of recent investigations in the Mainland and Islands of Unst and Brassay, Zetland. (Undertaken for the Earl of Zetland, K.T., and the Anthropological Society of London.)

† Ralph Tate, Esq., F.G.S., F.A.S.L. Report on Diggings in the Islands of Unst and Yell. (Made on behalf of the Earl of Zetland, K.T., and the Anthropological Society of London.)

George Petrie, Esq., Loc. Sec. A.S.L., Corr. Mem. Soc. Antiq. Scot. On the Prehistoric Antiquities of Orkney.

Joseph Anderson, Esq., Loc. Sec.A.S.L., and Robert S. Shearer, Esq. Report on the Ancient Remains of Caithness.

Dr. James Hunt, F.S.A., and George Petrie, Esq. Account of a Discovery of some Prehistoric Dwellings at Skail, Orkney.

Dr. James Hunt, F.S.A., F.R.S.L., Pres.A.S.L. On the Present State of the Ruins of Carnac, in Britanny. (Illustrated by original Drawings.)

Prof. Stephens, of Copenhagen, Principal Barclay, of Glasgow, Dr. Edward Charlton, of Newcastle-on-Tyne, Dr. Pruner Bey, of Paris, and Dr. George Moore, of Hastings. On the Interpretation of some Inscriptions on Stones found in Shetland.

Hodder M. Westropp, Esq., F.A.S.L. On Analogous Forms of Flint Implements.

H. Prigg, Esq., Jun., F.A.S.L. On the Occurrence of Flint Implements in the Gravel of the Little Ouse at the Red Hill, Norfolk.

* Colonel Beauchamp Walker, F.A.S.L., and Lieut. Ardagh, R.E. On the Discovery of a Kjökkenmödding at Newhaven; with Notes on the Animal Remains, by Prof. R. Owen, F.R.S., Hon. F.A.S.L., and C. Carter Blake, Esq., F.G.S., F.A.S.L.

* George E. Roberts, Esq., F.G.S., F.A.S.L. On the Discovery of Bones of Bear, Megaceros, and other Animals, cut and sawn by Flint Implements, in a Gravel Deposit at Richmond, Yorkshire.

George E. Roberts, Esq., F.G.S., F.A.S.L. On the Contents of some Ancient Kists.

Dr. Berthold Seemann, V.P.A.S.L. On the resemblance between Inscribed Stones in Veraguas, Central America, and those described by Mr. George Tate, from Northumberland.

Joseph Anderson, Esq., Loc. Sec.A.S.L. On the "Picts House" and Remains from Old Stirkoke, Caithness.

Dr. James Hunt, F.S.A., Pres.A.S.L. Observations on the Influences of Peat in Destroying the Human Body, as shown by the Discovery of Human Remains buried in Peat in the Shetland Islands.

Dr. James Hunt, F.S.A., F.A.S.L. On the Discovery of some Rude Flint Implements in Sussex.

* † J. Meyer Harris, Esq., F.A.S.L. On the Gallinas, a Tribe of Sierra Leone.

* † H. J. C. Beavan, Esq., F.R.G.S., Hon. Sec.A.S.L. Notes on the people inhabiting Spain.

Hyde Clarke, Esq., LL.D., Loc. Sec.A.S.L. On Moravian Wallachia.

* Hyde Clarke, Esq., LL.D., Loc. Sec.A.S.L. Observations on the Materials for Anthropology at Smyrna.

* John Beddoe, Esq., M.D., M.A., F.A.S.L. On the Evidence of Phenomena in the West of England to the Permanence of Anthropological Types.

* John Beddoe, Esq., M.D., F.A.S.L. On the Head Forms of the West of England.

Luke O. Pike, Esq., M.A., F.A.S.L. On the Psychical Characteristics of the English People.

‡ * † Dr. R. S. Charnock, F.S.A., F.R.G.S., Treas.A.S.L. On Cannibalism in Europe.

* W. Bollaert, Esq., Hon. Sec.A.S.L. Introduction to the Anthropology of America.

W. Bollaert, Esq., Hon. Sec.A.S.L. On the Maya Alphabet.

* † Capt. R. F. Burton, V.P.A.S.L. Notes on the Anthropology of North-Eastern Brazil.

Dr. Houghton. On Nature and Phenomena of Life, Health and Disease in Man.

* A. Higgins, Esq., Hon. For. Sec.A.S.L. On the Orthographic Delineation of the Skull.

* W. H. Wesley, Esq., F.A.S.L. On the Iconography of the Skull.

Dr. Paul Broca, Sécrétaire Général à la Société d'Anthropologie de

Paris. On a new Goniometer, for the Measurement of the Facial Triangle. [Referred by Section E to the Mathematical Section.]

‡ * † C. Carter Blake, Esq., F.G.S., F.A.S.L. On Certain Supposed Simious Skulls, Ancient and Modern, with Reference to a Skull from Louth in Ireland.

* H. G. Atkinson, Esq., F.G.S., F.A.S.L. On Two Australian Skulls.

* H. G. Atkinson, Esq., F.G.S., F.A.S.L. On the Idiotic Family of Downham, Norfolk.

* Dr. John Shortt, Loc. Sec.A.S.L. Observations on a Living Microcephale.

G. W. Marshall, Esq., LL.M., F.A.S.L. On Genealogy in its Relation with Anthropology.

K. R. H. Mackenzie, Esq., F.S.A., F.A.S.L. On Monogeny and Polygeny. [Objected to by Committee of Section D, on the ground of its probable immorality.]

Rev. Dunbar I. Heath, M.A., F.R.S.L., F.A.S.L. On the Anthropoid Origin of the European Races, *versus* the Theory of Migration from the East.

‡ * Dr. R. S. Charnock, F.S.A., F.R.G.S., F.A.S.L. On the Origin of the Gipsies.

* † Dr. Arthur Mitchell, A.M., F.A.S.L., Deputy Commissioner of Lunacy for Scotland. On the Influence of Sex upon the Offspring of Blood Relationship in Marriage.

‡ * D. Mackintosh, Esq., F.G.S. On the Comparative Anthropology of England and Wales. [This paper was objected to at first by the Committee of Section E, but afterwards read.]

K. R. H. Mackenzie, Esq., F.S.A., F.A.S.L. On the Views entertained by Parties towards Anthropology.

Examining this list, the rejection of some and the acceptance of other papers often savours of the ludicrous. For the first time in the history of science do I learn that a paper on the Gallinas (not the turkeys, but the negros) belongs to the domain of zoology or botany. And the same remarks applies to the papers, "Notes on the People inhabiting Spain," "On Cannibalism in Europe," and "On the Origin of the Gypsies." These papers were declared to be eligible for reading before Section D. A paper "On Monogeny and Polygeny" was strongly objected to, without having been seen, as it would probably be immoral, or else would evolve religious discussion. The paper "On the Influence of Sex upon the Offspring of Blood Relationship in Marriage," was suspected to be one of a class unfit for a general audience consisting partly of ladies ; yet it was accepted by both sections. On the officials of both sections being told that another paper, "Notes on the Anthropology of North-Eastern Brazil," comprised facts which were rather delicate and adapted for an anatomical, rather than a mixed audience, great desire was shown that the paper should be read in either section. It was, however, the duty of your delegates not to read these papers, whilst many other equally valuable, and more generally interesting contributions, remained unrecognised. The papers by Dr. Hunt and Mr. Tate on the Zetland explorations

were accepted as eligible, because they were illustrated with a large series of specimens of general interest; yet papers on similar explorations in Orkney and Caithness were rejected. The paper "On the Ruins of Carnac" was decided to be ineligible for Section E, partly because it was considered to be "archæological" (whatever that may mean), and partly because a doubt was expressed by members of Committee E whether Carnac was in Britanny, or Egypt, or both. Three papers on flint instruments were voted to be "geological," and advised to be sent to Section C, where they were not sent. The other papers On Historical Anthropology met with the same fate, with the exception of two, which Section D agreed to take, but which were not submitted to them. A strong expression was evoked on the part of the officials of Section E, that papers relating to skulls or any of the physical characters of man, should not be read, as the exhibition of skulls on the table of the section would not be suitable for a mixed audience, and few persons "knew anything about skulls" in Section E. For this reason, papers "On the Orthographic Delineation," and "On the Iconography of the Skull" were rejected by Section E, although accepted by Section D. Neither section, however, would accept a paper written by that illustrious anthropologist, Dr. Paul Broca, in which the description of his new goniometer was first brought before public English notice. None of the officials of Sections D or E knew what a "cranial goniometer" was; and at last it was despairingly suggested that as the paper was mathematical, that the mathematical or mechanical sections would form the appropriate vehicles wherein to announce the latest plan of measurement of the skull.

Four papers out of the forty-three brought up by the delegates of the Anthropological Society were read. My own paper "On Simious Skulls" was read in Section E, in conformity with the wishes of the committee of that section, and when read, elicited the singular criticism from the distinguished President, "that the paper, treating as it did of anatomical subjects, was so ethnographical (!!!) that it ought to have been read before sub-section D" (Physiology).

Mr. D. Mackintosh's paper "On the Comparative Anthropology of England and Wales" was read at the author's desire, but failed to elicit any discussion.

Dr. R. S. Charnock's paper "On the Origin of the Gypsies," contained a reply to certain statements promulgated in Section E last year by Mr. Crawfurd, and was accordingly read.

Dr. R. S. Charnock's paper "On Cannibalism in Europe" was read, as a paper on the same subject was read by Mr. John Crawfurd. The discussion on the paper is chiefly remarkable for the singular display of parliamentary ethics which it evoked; Mr. John Crawfurd, the author of the first paper on cannibalism, being in the chair of Section E when his own paper was being read, claiming successfully the right of reply from the chair on his paper, and denying the right of reply on the part of Dr. Charnock to the gentleman who had read his paper.

The Rev. Dunbar Heath's paper "On the Anthropoid Origin of the European Races," which was a paper which undoubtedly would have

evoked some discussion, was placed on the list last in order, and was too late to be read.

All the other papers brought up by the Anthropological Society's delegates will be laid before the Society, many, it is to be hoped, within the present session.

I shall not, as on previous occasions, offer an analytical table of all the papers read in Section E, as the depreciated tone of these papers at the Birmingham meeting, compared with those of Newcastle and Bath, must have struck every one. This remark is not merely applicable to the ethnological papers read. With scarcely an exception, they had all previously been read in London; and the geographical papers read, with the exception of a paper on "The Ascent of the Purús," and another on "The Zambesi Falls," also shared in this tendency to forget the true aims of science. The popular interest, which is occasionally spasmodically evoked by the appearance of some distinguished traveller, falls off when the papers, however intrinsically good, have no readers of notoriety with the general public. The section was very empty throughout the meeting.

To turn from the proceedings at the sectional meetings of the Association to those of the sectional committee, I have to report that frequent objections were made on the part of the advocates of anthropological science, to the practice of reading papers at the British Association which had already been read in London.

On Saturday, September 9, Dr. Hunt brought forward, and I seconded a motion, "That anthropology should either be recognised in Section E; or that a special section should be appointed for anthropology and ethnology." Mr. Crawfurd was then in the chair of the Committee of Section E, and refused to put this motion to the vote. It was consequently set aside by the irresponsible *veto* of the Chairman.

On Monday, September 11, the same motion was again brought forward by Dr. Hunt, and seconded by Dr. Balthazar Foster, the zealous Local Secretary of the Anthropological Society in Birmingham. Sir H. Rawlinson being then in the chair, there was no obstacle placed to the division, which, on being taken, resulted in nine votes being in favour, and eleven against the proposal.

On Tuesday, September 12, Mr. K. R. H. Mackenzie, an independent member of the Anthropological Society, proposed, and Mr. J. Fred. Collingwood seconded the motion:—"That it is highly desirable to establish a section or sub-section for the discussion of the science of man; and it is moreover urged upon the consideration of the Committee of Recommendation to take such action in the matter as will effectually prevent the limited time of the section being wasted for the future."

The words "Science of Man" were introduced into the motion in place of the word "Anthropology"; and when this motion was put to a crowded meeting of the Committee of Section E, it was carried unanimously, all the hands held up being in favour.

This motion was considered to be one which would meet the wishes of all parties. It was formally referred to the Committee of Recom-

mendations, whose report thereon, as well as on a recommendation which had been sent from Section D, I here subjoin.

"The Committee of Recommendations have received the two following recommendations from Section D:—

"'I. That the title of Section D be for the future 'Section D, Biological Science.'"

"'II. That Section D should comprehend the whole field of biological science. That the Council should cease to make special arrangements and to nominate a president for a physiological subsection D. That arrangements should continue to be made by the executive from year to year for a room adequate to receive any one sub-section which the Committee of Section D may be pleased from time to time to form. That in nominating vice-presidents to Section D, regard should be had to the possibility of a sub-section being formed for any one of the great branches of biological science, over which a vice-president might be called upon to preside.'

"The Committee have carefully considered these propositions, and beg to report, as their unanimous decision, the following recommendations to take effect next meeting.

"'That the title of Section D be changed to Biology, and that the Council be charged with making the requisite arrangements.'

"The Committee have received the following recommendations from Section E:—

"'That it is highly desirable to establish a section or sub-section for the discussion of the science of man; and it is, moreover, urged upon the consideration of the Committee of Recommendations, to take such action in the matter as will effectually prevent the limited time of this section being wasted in future.'

"The Committee have carefully considered this proposition, and recommend as their unanimous decision that no separate section or sub-section be established for the science of man.

"The Committee unanimously recommend that for the word 'subsection' in the third paragraph of the business of sections, the word 'department' be instituted."

It will be seen by this, that the chance which anthropological science ever had for recognition by the British Association has been considerably lessened by the course adopted by the Committee of Recommendations. Whether from time to time it may not be possible to obtain the occasional reading of some of our papers in Section D (Biology) is a supposition which I must leave to those anthropologists who would care to have their papers read in such a way; but the official declaration of the President of the Association that ethnology should remain a part of Section E, and that consequently anthropology might seek its own habitation elsewhere or nowhere, appears to my mind effectually to preclude our due recognition for many years. Into the future, however, I shall not look; as the task of recounting the difficulties of the present is quite great enough.

On the request of the authorities of the Association, the diagram illustrative of Dr. Hunt's explorations at Carnac were exhibited, as well as a few of the specimens obtained in Zetland, at the second

great conversazione in the Town Hall. The whole of the Zetland collection was the next day exhibited in the apartments at Queen's College, and inspected by many persons. It is my duty here to acknowledge the kind assistance and support which I and the other delegates of the Anthropological Society received from the authorities of Queen's College, to whom the hearty thanks of the Society are officially due.

To the numerous Fellows of the Society who supported our cause by their votes and influence great thanks are also due; and I hope that the representatives of the Society next year will not solicit the same support from them in vain.

All the events which took place at Birmingham have shown that we have a hard and an up-hill battle to fight. I have, however, perfect confidence that the day will arrive when the science of man shall receive its recognition before the Scientific Congress of England, when the memory of the intrigues which have disgraced the Birmingham meeting of the British Association shall have all passed away.

The PRESIDENT proposed that the thanks of the Anthropological Society should be given to the Warden and Council of Queen's College, Birmingham, for the facility so readily offered by them to the deputation from the Society, who were urged by the authorities of the college to proceed to hold the proposed anthropological congress in their lecture rooms and hall. The deputation from the Society, however, did not proceed to do so for the reasons assigned by Mr. Blake in his report. The Dean of the Faculty of the college also kindly offered, if on any future occasion the Anthropological Society thought fit to hold a congress in Birmingham, to place all the rooms of Queen's College at their service.

Mr. MACKENZIE said it was highly satisfactory to him to have to second the resolution, which he did very cordially. He went to attend the meeting of the British Association at Birmingham as an unfettered and independent member of this Society. He found at Queen's College much that interested and instructed him; it was particularly interesting, because it presented two aspects. Having been established for one purpose it had been also applied to fulfil another. Though originally intended for a place of more especially religious tuition, it was now chiefly a medical school and museum. It was a very useful and liberal institution, and he wished Queen's College the same degree of success that he felt assured the Anthropological Society would ultimately attain. With respect to Mr. Blake's report, especially that part of it referring to Section E, he must say that he did not share in his despairing views. He regarded the Anthropological Society as a certain success, but it was a question of time. Their object was to promote the science of man, politically, socially, and physiologically considered, and in his opinion they had rather gained than lost ground by what occurred at Birmingham. In the committee of Section E he moved a resolution, identically in the terms named in the report; but an amendment was proposed by Mr. Burke and seconded by Mr. Crawfurd, who were his proposer and seconder,

and only exponents on the sectional committee, for the purpose of settling the question between ethnology and anthropology. They said they liked the meaning expressed best in English, and wanted the term "science of man" to be substituted for the word "anthropology". Now he maintained distinctly that, in accordance with the derivation of the words from the Greek, there is no difference whatever between the signification of the word "anthropology" and the "science of man". The object of that Society, however, was not to promote personal quarrels but anthropological science, and he regretted that any personal feeling should be mingled with their proceedings. He wished it to be distinctly placed upon record, that Mr. Burke and Mr. Crawfurd at Birmingham established the "science of man" in Section E, and were willing to go with him (Mr. Mackenzie) substantially in the resolution he had moved. After the meeting, indeed, Mr. Burke, on meeting him, said he (Mr. Mackenzie) was, on the subject of anthropology, as mad as a hatter, and he had replied to that remark, that Mr. Burke always saw himself in other people.

Mr. D. W. NASH regretted to have heard in the report the observation that the ethnological papers read at Birmingham were unworthy of the notice of their official reporter. He thought that expression should be removed from the report. Even if that were the opinion of Mr. Blake, still he should recommend that words so strong, and so little calculated to give pleasure and to keep the peace, should be removed, for they would add fuel to the flames.

Dr. CAPLIN observed that it was an admitted maxim, that the way of getting on in this world was to make as many friends as you can. In accordance with this maxim, therefore, it would be wiser to make that expression a little softer.

Mr. LUKE BURKE said, that if the meeting understood the nature of the proceedings at Birmingham from what they had heard that evening, he must congratulate them on the facility of their apprehension; for if he had not been there he should have been in the greatest ignorance of what had really occurred from hearing the report. He objected to Mr. Blake's tendency to attribute motives, and he differed materially from him as to the opinion he had expressed on the value of the ethnological papers. To pass an opinion of that kind on a body generally supposed to be a rival society, was, he considered, an exceedingly indiscreet act. He repudiated, so far as he was concerned, all those attributions of motives contained in the report, which were derogatory to those who made them.

The PRESIDENT observed that Mr. Blake in his report did not attribute motives to any one, therefore Mr. Burke was wrong in saying so. As to the opinion expressed in the report of the value of the papers read at Birmingham, he must say that Mr. Blake was deputed by the Society to go there and make his report, and, in the capacity of their reporter, he spoke freely what he thought of the ethnological papers. They might have their own opinions on the subject, whether he was right or wrong, but what he had stated was his own impression, and for his (the President's) part he thought it right on such occasions to speak in bold language—he liked to hear a spade called a spade.

But there was no necessity to use strong language. They had a strong case, and it was only injuring it to do so.

Mr. RICHARD LEE said he was not at Birmingham, but he had formed an opinion of what had occurred from the report in the *Anthropological Review*, and he wanted to take that opportunity of saying that he thought that Society and the Ethnological Society were retarding the progress of the objects they had in view by wasting time in little disagreements between themselves. Therefore, if in the report there was any language that was strong, and calculated to irritate, it would be to the credit of the Society that the words should be withdrawn. He regretted that even on that evening so much time had been wasted. The best plan to adopt would be to let the Ethnological Society follow their course and for this Society to follow theirs, and that it would be much better to avoid contact with the Ethnological Society as far as possible. The observations that had been made by Mr. Crawfurd on the members of this Society were not only offensive, they were discreditable to Mr. Crawfurd himself as a man of science; but it was beneath their dignity to take notice of such remarks. For his own part, he had not the smallest doubt of the result, and that the success of this Society would be far beyond anything that the Ethnological Society could ever hope for; and they might safely be let alone.

Mr. CARTER BLAKE was glad to have heard the remarks of the gentlemen who had expressed their opinions on his report. He fully agreed with what Mr. Lee had said, and for his own part he must say that no one could be more ready than himself to withdraw the words objected to. He withdrew them in every way. The proceedings at Birmingham formed quite an era in the history of science, and, as the reporter of that society, he could not fail to take notice of them.

The PRESIDENT then put to the vote the question, "That the special thanks of the society be given to the Warden, the Dean of the Faculty, and the other authorities of Queen's College, Birmingham, for the liberal manner in which the College Hall, Lecture-rooms, and Library were placed at the disposal of the Society during the recent meeting of the British Association," and it was carried unanimously.

The PRESIDENT, having resigned the chair to Dr. Seemann, proceeded to read the following paper, which will be printed at length in the second volume of *Memoirs*—"On the Archaic Anthropology of the Zetland Isles." By Dr. James Hunt, F.S.A., Pres. A.S.L. The author of the paper gave an account of a recent visit made by him to the Zetland Islands, with the object of investigating the antiquarian relics reported to exist in those islands. He first visited Unst, the most northerly of the group; but found the chief objects of interest had been previously explored. He proceeded to examine the other islands, and described the results of an exploration of several large tumuli, which were chiefly composed of burnt stones. In one of these a stone hammer was found, of a unique pattern. In the interior of most of these tumuli there were found ruins of some building. In one case the structure was nearly complete, and resembled what is known as the "beehive" house. In another tumulus there was found a large upright stone

with a hole in the centre, the first instance, the author thought, of such a stone being found within a tumulus. He gave a detailed account of the discovery of an underground structure, from which were dug a large number of rough stone implements, resembling in form and size those which have been found in Pressigny-le-Grand, in France, and the uses of which have occasioned considerable discussion. These implements (which are not of flint, as are those of Pressigny-le-Grand) were exhibited to the Society, and the author brought forward the various theories current as to the objects of these and similar stone implements, at the same time stating his opinion that any definite conclusion as to the purposes or age of these objects could not be formed from the present data, and considered the subject as one of great importance, and deserving of further investigation by the Society. The author of the paper mentioned by name the various gentlemen to whom he was indebted for acts of courtesy whilst prosecuting his investigations, and mentioned especially the liberal donation of the Earl of Zetland, to assist in carrying out the researches which have been made under the auspices of the Anthropological Society.

Mr. RALPH TATE, who accompanied the President to the Zetland Islands, then submitted a report of the results of his explorations. This report will be printed at length in the *Memoirs*: — "Report on the Zetland Anthropological Exploration." By Ralph Tate, Esq., F.G.S., F.A.S.L. The author described the excavations conducted under his superintendence at the Mückle Heog, Isle of Unst, Shetland, which afforded remains of many human individuals, urns formed of steatite, and bones of domestic animals, birds, and fish, with numerous shells. He described some skeletons found by him in the Island of Uyea, where two adult skeletons were lying on a bed of fishbones.

Dr. SEEMANN proposed the thanks of the meeting to Dr. Hunt and Mr. Tate for their valuable and interesting reports of their explorations, which were unanimously accorded.

Mr. MACKENZIE remarked, with respect to the tumulus, that he thought it would be better to have something like a builder's estimate of the quantity of materials it contained, than such a general description as had been given.

Dr. HUNT stated that the tumulus at Safester was eighty feet in diameter, and fifteen feet high.

Mr. RALPH TATE said it might be thought extraordinary that he, who accompanied Dr. Hunt, should require any explanations; but, as he had confined his explorations to the most northern of the Zetland Isles, he had not seen the tumulus, and he wished to know whether the whole mass was formed of burnt stones.

Dr. HUNT replied that the whole mass of small stones in the tumulus was so composed.

Mr. RALPH TATE said he was induced to ask the question, because he suspected that the appearance of having been burnt might be accounted for by the nature of the work. In one instance he was acquainted with, similar stones, consisting of blocks of mica, were covered naturally

with a black incrustation, from which it might be supposed they had been burnt.

Mr. D. W. NASH mentioned a tumulus on the Cotswold hills, that was formed of burnt stones. A wall about three feet in height had evidently been burnt. It was a fact on which he would not offer an opinion.

Dr. SEEMANN, referring to the collection of stone implements on the table, said that one of them looked like the stones used by the Eskimos for cleaning skins. With regard to the large round stone with a hole in it, such stones were said to have been used by some savage tribes when any compact was entered into, the parties shaking hands through the hole. He had read accounts of such a proceeding in cases of marriages.

Mr. NASH observed that a stone of that kind existed in Abury. In plighting troth, the man and woman joined hands through the hole.

Dr. HUNT said the chief interest in the stone consisted in finding it in a tumulus. Stones of that kind were not very uncommon; but he believed the one he had discovered was the first ever found in connection with a tumulus. With respect to the burnt stones, on which Mr. Tate had commented, he must observe, that no one who had examined the tumulus had any doubt that the stones had been burnt. The observation of Mr. Nash was interesting, as it showed that the finding of such stones in a tumulus was not unique, but that the whole of the tumulus should have been formed of burnt stones he believed to be unprecedented. With respect to the cairns found by Mr. Tate in the gulley of a sand bank, he did not think there was sufficient evidence of their great antiquity. Mr. Tate had endeavoured to make out that they could be traced back for three hundred years, at least. His (Dr. Hunt's) opinion was, that the written documents referred to, in proof of that degree of antiquity, were worth very little. There had been no roads in the island until within the last few years; and the whole district was a perfect wilderness, and had but recently been allotted. It did not require a long period of time to cover such places as those, where the cairns were formed with sand, and to uncover them again. The documents referred to did not prove anything; and he believed the heaps of stones to be nothing more than the burial-places of shipwrecked mariners. The bodies of natives were not found buried so close to the water. He was inclined to doubt that they were three hundred years old.

Mr. R. TATE replied to the remarks of Dr. Hunt, and contended that, from the well known accumulation of sand on the island, from the geological evidence of great oscillation of level, and the formation of peat-mosses covering trees that do not grow there at the present time, it was clear that the cairns must be of great antiquity. Had the bodies interred been those of Norwegian mariners, they would not have been buried with so much care, and placed exactly north and south. The skull itself might afford some evidence of the period of the interment. The question could not be answered directly; but he hoped that the meeting would not attach want of antiquity to the bones until the subject had been further investigated.

On the motion of Dr. SEEMANN, the thanks of the meeting were unanimously given to the Earl of Zetland, and to those who had assisted Dr. Hunt and Mr. Tate in their explorations.

The PRESIDENT, having resumed the chair, announced that the Council had found that the finances of the Society, in consequence principally of the heavy expenses incurred in the publication of their works, were not in so satisfactory a state as at the last anniversary meeting; and he begged to state that, unless they elected a considerable number of Fellows before the next anniversary, there would not be that favourable balance to present as on the last occasion. He felt assured it was only necessary to mention that fact, to induce every one to exert himself to increase their numbers.

The meeting then adjourned.

DECEMBER 5TH, 1865.

JAMES HUNT, ESQ., PH.D., F.S.A., PRESIDENT, IN THE CHAIR.

THE minutes of the last meeting were read and confirmed.

The names of the following newly-elected members were announced:—James Bain, Esq., 3, Park-terrace, Glasgow; Henry Jules Blanc, Esq., M.D. Paris, M.R.C.S.E., Abyssinia; Sydney L. Blanchard, Esq., Arundel Club, W.C.; S. Phillips Day, Esq., M.A., 1, New Millman-street, Guildford-street, W.C.; Frederick Green, Esq., 17, Stratford-place, W.; Captain H. G. Gridley, Esq., M.P., 26, Wilton-crescent, W.; Thomas Moreton Johnson, Esq., Mostyn-cottage, Merton, Surrey; William Lawson, Esq., Brayton, Cumberland; the Rev. Frederick George Lee, D.C.L., F.S.A. Lond. and Scot., 19, Coleshill-street, Eaton-square; Joseph Stevens, Esq., Belford-lodge, Clapham-road; Thomas Wade, Esq., H.M. Secretary of Legation, Peking.

The following presents were announced, and thanks were voted to the respective donors:—

Psychoneurology, by R. T. Stothard, Esq. (the author). Merlin the Enchanter and Merlin the Bard, by D. W. Nash, Esq. (the author). Cast of head of native Australian (H. Brookes, Esq., F.A.S.L.) Eichthal; De l'usage pratique de la langue Grecque; Maltebrun, Anniversary address to the Paris Geographical Society; Mortillet, Les Terramares de Reggianais (by Dr. Hunt). Belzoni, Travels in Egypt; Bowring, Siam (by S. Edwin Collingwood, Esq., F.A.S.L.)

Dr. BEDDOE read a paper "On the Evidence of Phenomena in the West of England to the Permanence of Anthropological Types," of which the following is an abstract. The entire paper will be inserted in the second volume of the Society's Memoirs:—

"The paper was based mainly on certain tables, shewing the birth-places, and the colours of the hair and eyes, in upwards of 4,000 persons, whom he had had opportunities of observing in the course of his hospital practice at Bristol. These tables shewed a great prevalence of dark hair and eyes among the Welsh, and of dark hair, often coupled

with light eyes, among the Irish and the Keltic people of the west of England. The natives of portions of Wiltshire and Gloucestershire were more frequently light-haired; and those of Bristol occupied an intermediate position. These facts might, the author thought, be pretty easily accounted for on the theory of permanence of chromatic type; but would hardly lend themselves to any other doctrine; though he allowed that the eyes were rather more frequently dark in the natives of the towns, than they should have been according to his theory. He reserved the evidence derived from the skull-forms for a subsequent paper."

The PRESIDENT, after having proposed the thanks of the meeting to Dr. Beddoe for his interesting paper, proceeded to observe that it was a paper of great value to those who study man as a science without limiting their consideration to race. It was an interesting question connected with the progress of civilisation and its effects, whatever they might be, to determine the difference of the type between those who live in large towns and those who dwell in the country. Dr. Beddoe was one of the most careful observers of the present day, and the results of his extended observations were placed in a tabular form at the end of the paper; they were most important, but they had not been read, as it would have been impossible to understand them on mere perusal, for they required attentive examination. They extended over a large area in the course of his hospital practice, and would be found of great value. It would be impossible on that occasion to go into all the questions that had been raised in the paper, and he (the President) hardly thought that Dr. Beddoe had put forth the opinion he advocated—that the Teutonic tribes were fairer than the Britons—as more than a speculation. There had been little evidence adduced to support such an assertion. It might, on further examination, prove to be true, but such a conclusion could only be arrived at by extended observations made in the same manner as those of Dr. Beddoe, and he hoped that that gentleman's good example would be followed by other anthropologists in this country.

Mr. WALKER said he had taken great interest in the paper, but he considered further information was required before they could decide what had been the influence of the Teutonic invaders, especially in the west of England. In South Wales, it had been observed, the hair of the people was darker and more curly than in other parts of the country, and that they resembled somewhat the natives of Spain; from which country it had been supposed they derived their origin. He had been much struck with the number of dark complexions he had seen in that part of the country, for it was known that the aboriginal natives of Britain were fair. There would be little doubt of distinctive differences; the only doubt in his mind was, how far the cause of the difference could be traced, and whether it was attributable to difference of race. The effect of the Teutonic invasion was far from general, as an indication of which he mentioned that the people of Wiltshire spoke Welsh for four hundred or five hundred years after that period. Admitting the fact that the distinctions noted in the paper exist, it still

would remain an open question whether the difference was attributable to difference of race or to local causes.

Mr. CARTER BLAKE said he would only advert to one little point in the very able paper of Dr. Beddoe, touching on comparative anthropology, on which he begged to ask a question; though it was, perhaps deviating from the exact topic of the paper. He hoped Dr. Beddoe would be able to tell something about the introduction of Flemish blood into Wales within the historic period of Milford Haven; and whether there is any real difference between the complexions of the people in that part of Wales and the coloured boundary line in Berghaus's atlas; whether, in short, there is a marked apparent distinction between the supposed Flemings and the ancient Silures. He should further wish to know whether in the differences of the complexions of the people in the districts named in the paper Dr. Beddoe could correlate that distinction with the distribution of the British tribes who inhabited that district.

Dr. SEEMANN observed that the author of the paper might have added to the inhabitants of towns who have darker complexions than those of the surrounding country the city of Hanover, where the contrast between the two is very remarkable. As it appeared doubtful what were the complexions and colour of the hair of the invading Saxons, he thought some information on the subject might be derived from existing proverbs and prejudices. It was a curious fact that among the Germans there is a great prejudice against red hair, while in Spain the contrary sentiment prevails; and he thought that if the majority of the Saxons had had red hair those who inhabit the country they came from would not taunt those who had hair of that colour.

Dr. CAPLIN felt indebted to Dr. Beddoe for his interesting communication, but he should like to see some useful deductions drawn from the distinctions of colour that he had noticed. It had been asserted by some authors that people who have different complexions possess different mental and physical characteristics, and are liable to different diseases, and he should be glad to hear whether there be any truth in such opinions.

Mr. NAPIER considered the kind of hair highly important as an indication of general character; but, in considering that question, it would be requisite to take into consideration the texture of the hair as well as the colour. Black hair, if coarse, was very different in its anthropological indication from fine black hair. Those persons who have coarse black hair have generally a vigorous temperament, but those who have thin black hair are the reverse. With respect to the alleged difficulty of rearing fair children, he differed from Dr. Beddoe; for, if not too fair—approaching to the albino—a fair complexion he considered was generally accompanied with strength and vigour. The most vigorous men and children had light strong hair. They might not be so fit to contend with a tropical climate, but they get on better in our country. It must be observed, however, that persons with very coarse black hair have generally much physical power. He had noticed that different texture of the hair is accompanied with different styles of features. Those who have strongly marked features generally have

black coarse hair. The reverse is the case when the hair is fine; for then the features are mostly small and delicate. With regard to the term melancholic temperament, which had been used by Dr. Beddoe, he should like to know its meaning. If it signified melancholy disposition, Lavater had given a figure of such a person in which the features had a marked melancholy expression and such a disposition was generally accompanied with black hair. He objected to the term melancholic temperament, because it conveyed no definite meaning. A bilious temperament, which partly includes melancholic, but not exactly, he considered a preferable term. With respect to the influence of town life on the complexion and colour of the hair, he thought that it had not much to do with the change of colour, and that the colour of the hair had not much to do with the temperament, which was more associated with the texture than with the colour of the hair. Colours, he thought, were somewhat significant of character in other parts of living creation, in which black hair generally indicated power. That observation applied to all animals, and even to fruit, the dark coloured having most strength and flavour; and even among the black races of men there was much physical power.

Mr. Richard Lee dissented from the opinion that persons with black hair are better calculated to bear change of climate, than those who have light hair, and asserted that persons with light hair can adapt themselves to the change better than those whose hair is black. He took exception also to Mr. Napier's assertion that the difference in the colour of the hair, indicates difference in energy. All nations who have shown the greatest energy he contended were fair-haired people. He adduced the Chinese as contradicting the opinion that dark and coarse haired people are more energetic than those with fair and fine hair; for the Chinese have generally dark and coarse hair, yet are most torpid. The American tribes of Indians and the aboriginal Australians were also adduced as contradicting Mr. Napier's opinion. The latter people were of one origin, yet the hair of the different tribes was of all descriptions, excepting as to colour, and was of all kinds of texture. He should be glad if data could be found whereon to place this question on a more satisfactory basis.

Mr. J. Meyer Harris said his experience was completely opposed to the assertion of Mr. Napier, that persons with dark hair could bear a hot climate better than those who had fair complexions and light hair. He spoke particularly as to red hair, for he knew that persons with hair of that colour stand a hot climate better than those who have dark hair, and in making his selection of men to go to Africa, he always preferred those with red hair.

Mr. S. Edwin Collingwood corroborated Mr. Harris's opinion by mentioning one instance of a gentlemen with fair complexion who had resided in good health for twenty years on the Gold Coast and Sierra Leone, while all his friends there died.

Dr. Beddoe replied to the remarks on his paper. With regard to Mr. Watkins's observations about the people of Wiltshire he did not mean in his paper to say that they were pure Saxons, but merely that the Teutonic race preponderated in some parts, and that there was

considerable difference in the appearance of the people in different districts. At Calne, gray eyes and dark hair are prevalent; about Wilton, the people are fair, and have the Teutonic form of head; at Southampton, the type is fairer than among the majority of the people of Wiltshire, and on approaching the focus of the Saxon invasion, Teutonic resemblances become stronger. Mr. Blake had asked whether the differences he had observed had any relation to the differences that might have existed between the Belgæ and the Dobuni. He was not prepared to say he had found such differences. Both north and south of the Belgic frontier there was a mingling of dark and fair. Mr. Rowland Williams had said of the people of S.W. Wiltshire, that neither Saxons nor Celts, but pre-Celtic he thought them; and if there were any relics of the Belgæ, they would be found there. With respect to the characteristics of the people of Milford Haven, he had seen few of them: the Teutonic type did occur there, and the natives all testified to the distinction of race: but judging from the family names he did not think the prior Welsh population had been completely expelled. As to the prevalence of diseases among people of distinct complexions, he had paid some attention to that subject, but he considered it was one that belonged rather to medical science than to anthropology. In an article in the *British Medical Journal*, two years ago, he had expressed the opinion that consumption is not more prevalent among fair-haired persons than among those with black hair. Those who were least liable to that disease he thought were persons whose hair is of an intermediate colour. Cancer generally attacks persons with black hair, while light haired individuals are most liable to skin diseases. With regard to the term melancholic temperament, he meant by it to express something answering to the description given of it by the ancients, and it was generally accompanied with black or dark hair and a dark complexion, hypochondriacs being often found in that class. Sanguine people (who are often red-haired), on the contrary, often go on suffering, even to the point of death, without making any complaint; and it is difficult to make them comprehend that they are in danger. Whether fair-haired people adapt themselves to change of climate better than those who have dark hair, is a question of extreme importance and should be carefully investigated. He must confess he had heard the opinions that had been expressed on the subject with some surprise; for the impression on his mind was that most of the recent African travellers have dark complexions.

A paper contributed by Dr. Charnock, "On Cannibalism in Europe," was, in his absence, read by Mr. C. Carter Blake.

Cannibalism in Europe. By Richard Stephen Charnock, Ph.Dr., F.S.A., F.R.G.S., F. and Treas. A.S.L.

The discussion last year at the Anthropological Society of London upon certain remains at Caithness, has opened up the question whether cannibalism has ever been practised in Europe? The subject is, of course,

unpalatable to Europeans, and perhaps few will be inclined to believe in it. When, however, it is taken into account that the inhabitants of Europe were at one time quite as savage as those who have practised, or who still practise this crime, surely the present generation need not blush to admit the fact. It may be thought out of place to refer to fabulous history; but the question arises, what is, and what is not, fabulous. Until the discovery of gold in California, El Dorado was looked upon as a myth. Again, it was customary to scout as fables all stories of Amazons, or even of an established equality in any nation of women with men; but the travels of Captain Burton and Dr. Livingstone have proved that in parts of Africa such a position is actually occupied by the female sex at this day.* In the Homeric poems the Cyclops are a gigantic, insolent, and lawless race of shepherds, who lived in the south-western part of Sicily, and devoured human beings.† We learn from Porphyry, that in Chios and Tenedos, the votaries of Bacchus sacrificed to him, *ανθρωπου διασποντες*, tearing a man limb from limb, and eating him, no doubt, as the *ὠμοφαγαια*, or eating raw flesh, was one of the peculiar rites of the Dionysiac mysteries. According to Sextus Empiricus, the first laws that were made were for the prevention of this practice, which Greek writers represent as universal before the time of Orpheus. "Fabulous history", says Dr. Brewster,‡ "is full of accounts of anthropophagi. According to some authors, to eat human flesh was a primitive and universal custom. Thus Entremerus informs us, as the passage has been translated by Ennius (quoted by Lactantius *Divin. Institut.*, vol. c. xiii, p. 59), that Saturn and Ops, and the rest of mankind in their time, were accustomed to feed on human flesh. *Saturnum et Opem, cæterosque tum homines humanum carnem solitos esitare.* The first step towards civilisation was the abolition of this barbarous custom; and Orpheus is thought to have had the merit of this reformation. What Horace says concerning him cannot well be understood except as relating to this practice:—

> "Cædibus, et victu fœdu deterrent *Orpheus.*"

By the poets, the Læstrygones, the Lamiæ, the Sirens, and the Cyclops are all celebrated as infamous Anthropophagi. Circe and Scylla come under the same character as individuals. A horrid account is given by Homer of the fate of Ulysses' companions in the Cyclops' den—

> "Torn limb from limb, he spreads the horrid feast,
> And fierce, devours it like a mountain beast.
> He sucks the marrow, and the blood he drains;
> Nor entrails, flesh, nor solid bone remains."

Though these accounts be overcharged and mixed with fable, there can be little doubt that they are founded on the manners of the times; for we find the same accounts given by grave historians, and authenticated by all the evidence which the nature of the case will admit. Indeed Diogenes, Chrysippus, Zeno, and most of the stoics main-

* Rawlinson's Herodotus.
† Hom. Od., vi, 5, ix, 106, etc., 190, etc., 240, etc., x, 200. ‡ Encyc. Brit.

tained that there was nothing unnatural in the eating of human flesh, and that it was more reasonable to use dead bodies for food, than to give them a prey to the worms and to putrefaction.

A late French writer* says :—"Et d'ailleurs, si l'on considère l'anthropophagie sous le point de vue sérieux et rationnel qui convient à notre époque, il est facile de voir que le crime est dans le meurtre qui précède, et non dans l'acte de manger la chair de son semblable. Cette chair ne présente pas de différence appréciable avec celle des animaux que nous employons pour notre nourriture ; et les personnes qui se sont trouvées dans l'obligation de s'en nourrir, dans de penibles circonstances, ne lui ont trouvé aucun goût désagréable: les sauvages prétendent même qu'elle est fort bonne. Ils répondront d'ailleurs victorieusement, par leur vigueur et leur santé robust, à ceux qui voudraient faire supposer à cette chair des qualités nuisibles, quand même des exemples plus récens et plus voisins ne seraient pas là pour démontrer le contraire. Si donc, dans les cas où des individus ou des populations se sont trouvés réduits à se nourrir de chair humaine, on a observé une grande mortalité, c'est moins à cette nourriture qu'il faut l'attribuer qu'aux circonstances au milieu desquelles on a été forcé d'y avoir recours."

St. Jerome, after stating that the Sarmatæ, Quadi, and several other nations, eat the flesh of horses and foxes, says :†—"What shall I say of other nations ; when I myself, when young, have seen in Gaul the Attacoti (by others the Scotch), a British nation, who, though they might have fed on swine and other animals in the forest, chose rather to cut off the posteriors of the youths and the breasts of the young women, and considered them as the most delicious food." To which Voltaire adds, "Pelloutier, who sought for everything that might do honour to the Celts, took the pains to contradict Jerome, and to maintain that his credulity had been imposed upon. But Jerome speaks very gravely, and of what he *saw*. We may, with deference, dispute with a father of the church about what he has heard ; but to doubt of what he has *seen* is going very far. After all, the safest way is to doubt of everything, even of what we have seen ourselves." The Attacoti in Britain are said to have inhabited the whole country from Loch Fine, on the west, to the eastward of the River Leven and Loch Lomond, and to have been called in ancient British, *Eithacoeti*, or the men dwelling along the extremity of the wood. My friend, Mr. C. Carter Blake states in a private note that the "most correct edition‡ of the father gives *Atticolos*, instead of *Atticotos*"; but this only fixes the practice to a greater certainty upon the Gaels ; for if the proper form of the word is *Attacoti* or *Eithacoeti*, it would seem to come from the

* Encyc. des Gens du Monde.

† "Quid loquar de cæteris nationibus, quùm ipse adolescentulus in Galliâ viderim Atticotos [Al. Scotos], gentem Britannicam, humanis vesci carnibus, et quùm per silvas porcorum greges pecudumque reperiant, tamen pastorum nates et fœminarum papillas solere abscindere et has solas ciborum delicias arbitrari."—Hieron., ii, 335 ; Migne, *Patrologie, Cursus Completus*, t. xxii, 24.

‡ Edit. Vallarsii, lib. ii, cap. vii, tom. ii, p. 355. See also Buchanan, lib. ii ; Rerum Scoticarum, etc., p. 17 ; Amm. Marcell., lib. xxvi, c. iv, and lib. xxvii ; and Hieron. Epist., 69, No. 63.

Welsh *coed*, a wood, whereas *Attacoli* is more probably from the Gaelic *coille*, of the same meaning.

The inhabitants of Iris, i.e. Ireland, were anciently reputed to be eaters of human flesh.* According to some writers, the Galatæ who dwelt in Europe also practised this custom.† Speaking of the Gauls, Diodorus Siculus says:—"The women here are both as tall and courageous as the men. The children for the most part from their birth are grey-headed; but when they grow up to man's estate, their hair changes in colour like to their parents. Those towards the north, and bordering upon Scythia, are so exceedingly fierce and cruel that (as report goes), they eat men like the Britains that inhabit Iris." Pliny mentions the Essedones as a barbarous people, who eat the flesh of their friends after death, and made drinking-bowls of their skulls. Herodotus,‡ who styles them Ισσηδονες, says:—"When a man's father dies, all the near relations bring sheep to the house, which are sacrificed, and their flesh cut in pieces, while at the same the dead body undergoes the like treatment. The two sorts of flesh are afterwards mixed together, and the whole is served up at a banquet. The head of the dead man is treated differently: it is stripped bare, cleansed, and set in gold. It then becomes an ornament on which they pride themselves, and is brought out year by year at the great festival, which sons keep in honour of their fathers' death, just as the Greeks keep theirs. In other respects, the Issedonians are reputed to be observers of justice; and it is to be remarked that their women have equal authority with the men. Thus our knowledge extends as far as this nation." The Essedones were a Scythian people, who lived partly in Europe and partly in Asia,§ but there is no proof that the boundary line in anywise affected their habits and customs. Among the Massagetæ, who had a community of wives, when any person grew old, they killed him and ate his flesh; but if he died of sickness, they buried him, esteeming him unhappy. The Massagetæ were a people of Central Asia; but were looked upon as a part of the Scythian nation, which also inhabited Europe.‖

"In the middle ages, it is true," says a late writer,¶ "these stories of cannibalism were wonderfully enlarged, and people who had not embraced Christianity were pretty generally set down as anthropophagi. When the Lombards invaded Italy at the end of the sixth century, it was reported of them that they ate human flesh; and a century later the same aspersions were cast on the Slavonian tribes. It became the fashion to bandy the accusation between enemies; thus, during the Crusades, the Saracens said the Christians ate human flesh, as well as the unclean flesh of swine; while the Christians on their side maintained that the Saracens ate men, women, and

* See I. Boëm. Mar. Lex., et Rit. Omn. Gent., Genev., 1620; Diodorus, Sic. v, chap. ii.

† Ibid. He calls Ireland, Iris; a word doubtless corrupted from Ιέρνις.

‡ B. iv, c. xxvi.

§ See Mela, ii, 1, 4; Plin., H. N., iv, § 26, vii, § 7, and c. xvii, § 19.

‖ Cf. Rennell's Geog. of Herodotus, s. x; Arrian, iv, 17; Plin., H. N., v, 9.

¶ P. Cyc.

children, and were particularly fond of a sucking Christian babe torn fresh from the breast of its mother. The giants and ogres of our nursery tales are only the Saracens of the holy wars seen through the magnifying glasses of tradition and romance. It does not much surprise us that in those rude ages men should try to fix a revolting practice on their sworn foes, but we can hardly understand why the minstrels of the Christians should convert their most approved heroes into cannibals, and praise them for the quantity of infidel flesh they devoured. Yet our Richard I is put in this predicament by the author or authors of the romance of *Richard Cœur de Lion*. According to the poem, the first symptom of the king's recovery from a dangerous sickness at Acre, was a violent longing for pork, and as pork was difficult to procure in a Mohammedan country, his cook dressed him a Turk's head, of which Richard ate with a good appetite, and felt himself quite well in consequence. After some more repasts of the same kind, he is made to say—

> 'King Richard shall warrant,
> There is no flesh so nourissant
> Unto an English man,
> Partridge, plover, heron ne swan,
> Cow ne ox, sheep ne swine,
> As the head of a Sarezyne!'"

It would doubtless be going too far to assert that in modern times any European nation or tribe has been addicted to cannibalism. Many solitary cases have however occurred in different parts of Europe. According to Reinard,* Tarik (from whom Gibraltar, *Jibāl Tarik*, had its name) killed his prisoners, and served them up as rations to his troops. "This delicacy," says Mr. Ford, "formed a *rechauffé* in modern Spanish bills of fare: the *entrée* was pleasantly called *un guisado à la Quesada*, the patriotic *nacionales* having killed and eaten part of that rough and tough royalist in 1836." In Germany, during the reign of Joseph II, gypsies have been known to murder travellers, cut them to pieces, salt and eat them. The history of Milan furnishes an extraordinary instance of anthropophagy. In that city, in the year 1519, a woman was broken on the wheel and burnt for enticing into her house children whom she killed and salted. It seems she had carried on the practice for a considerable period. During the late well meant, and at the same time futile attempt to unite Italians, Greeks, Celts and Germans into what has been absurdly denominated "Italian nation", numerous instances of cannibalism have been recorded. One of the most revolting cases that has happened in France is that of the brigand, cannibal Ferrage. Blaise Ferrage, surnamed Seyé, was born at the village of Ceseau in the Comminges, where he followed the business of a mason. At the age of twenty-two he retired to the mountains of Aure, where he took up his abode in the hollow of a rock, whence he decoyed the peasants, and having first robbed them, assassinated and devoured them. "Il préférait, disait-on, pour ses repas de cannibale, les femmes, et surtout

* Inv. des Saracins. † Encyc. Met.

les jeunes filles. Les cadavres des hommes qu'il égorgeait ne pouvaient satisfaire que sa voracité, tandis qu'il pouvait commettre un double crime sur ceux des femmes qui expiraient sous ses coups, et qui, avant de devenir sa pâture, servaient à satisfaire sa luxure. La plus tendre enfance n'obtenait même pas grâce à ses yeux, et le fer prêtait au besoin son secours à ses attentats."

An account of this monster is found recorded in the *Causes Célèbres.** He was broken on the wheel on the 13th December, 1782. A still more horrible case occurred in Scotland in the time of Elizabeth of England. Sawney Beane, his mistress, and family, lived for twenty-five years in the county of Galloway in a cavern washed by the ocean. In the neighbourhood they waylaid travellers, none of whom were ever afterwards heard of, either living or dead, a circumstance which created great surprise and alarm in the vicinity. The discovery was made in the following manner. On one occasion a man and his wife were attacked whilst passing through a forest. The husband escaped, having first been compelled to witness the murder of his wife. Subsequently the king in person, with a force of four hundred men scoured the country, and, after some difficulty, discovered the lair of the Sawney family. On entering the cavern, legs, arms, thighs, hands, and feet of men, women, and children were found hung up in rows round the walls like dried beef; and a great many limbs lay in pickle. There was also discovered a good deal of money, besides watches, rings, swords, pistols, clothes, linen, etc., thrown together in heaps. Sawney's family, at the time of their capture, besides the lord and master, included his wife, eight sons, six daughters, eighteen grandsons, and fourteen granddaughters, all born in incest. They were all executed in a most barbarous manner and without trial. It was reckoned that at least one thousand men, women, and children had fallen victims to this monster and his family. A full account of the case, with an engraving of the brigand-cannibal's den, will be found in Captain Charles Johnson's History of famous Highwaymen.† In some instances the desire for human flesh appears like other perversions of the appetite, to have been occasioned by disease. Migne‡ says: —"Certains hommes sont saisis tout à coup d'une affreuse manie: ils tuent et dévorent leurs semblables. Plusieurs faits de ce genre ont été recueillies par le professeur Chr. Grüner d'Iéna. Des femmes enceintes éprouvent le même desir. Enfin, cette passion semble quelquefois se perpétuer dans une famille et se transmettre héréditairement, comme une disposition physique ou morale, des pères à leurs enfants." Thus, in Germany, one Goldschmidt, a cowherd, who had committed a murder, and, to prevent discovery, had cut the body in pieces, suddenly felt a craving for human flesh, and, after devouring the body of the murdered man, afterwards killed an infant in order to gratify his unnatural longing. Boethius, in his history of Scotland,§ mentions an instance in Angus, where this disease seized a whole family, consisting of a man, his wife, and children. They had killed and eaten several persons

* 1re S., t. iv, 59, Paris, 1835.
† London, fol., 1734.
‡ Dict. D'Anthrop., t. xliv, p. 1041.
§ Lib. xviii.

whom they had enticed into their dwelling. They were all sentenced to be burnt alive except one daughter of tender years, but scarcely had the latter reached her twelfth year when she was executed for the same crime.*

Many cases of cannibalism have been caused by sheer famine. On the retreat from Moscow the soldiers are said to have been compelled to eat the bodies of their deceased comrades. Voltaire speaks of one instance in his own province, attested by Julius Cæsar. The latter was besieging Alexia, in the Auxois. The besieged having resolved to defend themselves to the last extremity, and wanting provisions, a great council was assembled, in which one of the chiefs, Critognatus, proposed that the children should be eaten one after another, to sustain the strength of the combatants. His proposal was carried by a majority of voices; and Critognatus, in his harangue, tells them that their ancestors had had recourse to the same kind of sustenance in the war with the Cimbri and Teutones. "One word more on cannibalism," says Voltaire, in a book which has had considerable success among the well-disposed, we find the following words to the same effect: "In Cromwell's time, a woman who kept a tallow-chandler's shop in Dublin, sold excellent candles, made of the fat of Englishmen. After some time, one of her customers complained that the candles were not so good. 'Sir,' said the woman, 'it is because we are short of Englishmen!'"

In 1030 commenced one of the most dreadful famines which has ever desolated France, and continued for three years. Men, so to say, went to the chace after men. They attacked one another, not for robbery, but simply to procure food. During this famine an inhabitant of Macon, who professed to lodge travellers, was accused of having killed and eaten no less than forty-eight persons, whose bones were found in his house. He was burnt alive by order of Othon, Count of Macon.† But what should we say of cannibalism permitted by the law of the land. According to the ancient law of Spain, "a father besieged in his lord's castle, and pressed by hunger, might eat his own son without incurring any reproach sooner than surrender without his lord's mandate". This law is referred to in *Las Siete Partidas*, a code compiled by Alfonso El Sabio, and will be found in the *Quarta Partida*, Tit. xvii, Ley. viii. I give a free translation of it from the original Spanish.

"A father impelled by hunger and poverty, and having no other resource may sell or pledge his sons to obtain food; and the reason is that he has no other means of preventing death. But there is still another reason—A father besieged in a castle which he holds of his lord and pressed by hunger, may eat his own son without incurring any reproach sooner than surrender the castle without his lord's order. And if a father may do this for his lord, *à fortiori* he may do it for himself. And this is another right which a father has over those of his sons which are under his control, and which right the mother does not possess. It must, however, be understood that a father has no right either to pledge or sell his son except as a *dernier ressort*."‡

* Partington, Brit. Cyc.

† See Migne, Encyc., Théol., t. i (Dict. des Sciences Pol. et Soc., 1), Paris, 1855.

‡ The original runs thus:—" Quexado seyendo el padre de grand fambre,

It is reported that during the siege of Calahorra by Afranius, the famine was so terrible the defenders obeyed to the letter this ancient law, preferring to eat their sons and wives rather than surrender. This famine has become proverbial in history under the name of *Hambre Calagurritana.**

Mr. REDDIE said he was not aware what was the real drift of the paper, for it seemed to relate as much to modern Europe as to the savages of former times. He much questioned whether the people of this country, when in a savage state, did eat human flesh. Setting aside a few extreme cases, it would be found that cannibalism, even among the lowest races of mankind, was not so predominant as some people suppose. The fact was, that human flesh did not agree with them. The Fiji islanders, among whom the practice undoubtedly prevails to some extent, always go to the medicine-man after having eaten human flesh. It is unnatural for any creature to eat the flesh of its own kind; and the lower animals do not do so as a rule, but only in exceptional cases. There were, no doubt, exceptions to the rule in the days of Herodotus, as with us; but the accounts that had been given of androphagi, were mere stories or poetical exaggerations, and it was absurd to rest an anthropological discussion on the illusions of poetical fancy and the tales of old women. The oft-repeated statement of St. Jerome proved nothing. He most probably believed what he narrated, but he might have exaggerated what appeared to him to be the natural characteristics of a savage people. He hoped that Mr. Pritchard, and those who had had experience among people reputed to be addicted to cannibalism, would come forward, and say whether such cases were or were not exceptional.

Mr. PRITCHARD said that, during his residence in Fiji, he had had ample opportunity of observing what was the custom regarding the eating of human flesh, and he could say that they did not do so from liking it; but they ate their enemies out of revenge. He had often heard that they were taken ill afterwards, and it was understood among them that that was the general effect of eating human flesh.

e auiendo tan grand pobreza, que non se pudiesse acorrer dotra cosa; estonce puede vender, o empeñar sus fijos, porque aya de que comprar que coma. E la razon por que puede esto fazer, es esta: por que pues el padre non ha otro consejo, por que pueda estorcer de muerte el, nin el fijo, guisada cosa es, quel pueda vender, e acorrerse del precio: porque non muera el vno, nin el otro: E aun ay otra razon por que el padre podria esto fazer: ca segund el fuero leal de España, seyendo el padre cercado en algun Castillo que touiesse de Señor, si fuesse tan cuytado de fambre que non ouisse al que comer, puede comer al fijo, sin mala estança, ante que diesse el Castillo sin mandado de su Señor. Onde, si esto puede fazer por el Señor, guisada cosa es, que lo puede fazer por si mismo. E este es otro derecho de poder que ha el padre sobre sus fijos, que son en su poder, el qual no ha la madre. Pero esto se puede fazer en tal razon, que todos entiendan manifiestamente que assi es, quel padre non ha otro consejo, por que pueda estorcer de muerte, si non vendiere, a empeñare al fijo."

* Duró tanto tiempo el sitio de esta c., que sus vec., consumidas las provisiones, despues de haberse alimentado algun tiempo conanimales inmundos, e hijos y alimentarse con su carne por lo que fué proverbial el hambre Calagurritana.—Madoz, quoting Val. Max., lib. vii, c. vi; Sal. Hist., lib. iii, c. i.

They were also prevented from doing so by dread of being visited by the spirits of those whom they had eaten. There were some terrible stories told of the cannibalism of the Fiji islanders, and he believed they were facts; but the motives attributed to the natives were erroneous. One of the chiefs was said to have had pieces cut out of living men and eaten them, but it was intended as a warning to their enemies, and to terrify them. One of the chiefs admitted that he had often eaten parts of a great many men; but he said he did it, not because he liked it, but to frighten his enemies.

Dr. CAPLIN alluded to instances of cannibalism, when shipwrecked mariners were destitute of food and tossed up who should be killed and eaten. With respect to the taste of human flesh, he believed it was not different from that of beef; and he mentioned a horrid practical joke that had been played on a medical student, whose comrades cut out a piece from a body in the dissecting-room, and had it fried and served up to him as a beef-steak, which he ate, and thought very good.

Dr. BEIGEL observed that there were two questions to be considered; first, was there ever a time when cannibalism was practised in Europe; and secondly, whether there were single instances of it. The first point, he thought, had not been proved; such evidence as had been brought forward that evening having failed to establish it, and was not confirmed by history. With respect to the second question, he thought it was sufficiently proved. He mentioned a case in the course of his own practice in Silesia, of a young man who murdered his mother and ate her body. He had killed her in a quarrel; and when accused of the crime, he admitted it, but contended that she had no right to quarrel with him, and that he was justified in killing and eating her. Dr. Beigel said that he and other medical men examined the man, to ascertain whether he was insane; but his mind, in other respects, seemed to be in a perfectly healthy state, and he was executed. Cases such as that, however, did not prove that cannibalism was ever practised in Europe.

Dr. SEEMANN adverted to the practice of cannibalism as a medical agent. He said that mummies were extensively used as medicine until it became generally known that in most instances Europeans were using bituminised portions of their own countrymen instead of the contemporaries of Rameses the Great and other early Egyptian monarchs. There had been a regular trade in them as medicines, and great virtues were ascribed to mummy-flesh as a cure for several diseases. Cannibalism in another form was practised for medicinal purposes in Denmark and the north of Germany, where it was the custom to drink human blood for the cure of epilepsy. When criminals were executed, the blood was caught in a tumbler and drank. He had seen it done twenty years ago, and believed the practice was continued to the present day.

Mr. MACKENZIE observed, with reference to the use of human blood as a curative agent, that it might be attributed to the fact that in ancient times the practice was connected with the belief in the immortality of the soul. It was conceived that by transferring the

blood of those who were dying into living bodies, the latter obtained their lives. In the middle ages, persons sold their souls under certain bonds, and made their immortality an article of commerce.

The PRESIDENT brought the discussion to a close, by announcing that the next meeting would be the last, before the anniversary, at which new Fellows would be elected.

The meeting then adjourned.

DECEMBER 19TH, 1865.

JAMES HUNT, ESQ., PH.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

THE minutes of the last meeting were read and confirmed.

The names of the following new members were announced:—John Bennett, Esq., F.R.A.S., 74, Cheapside, E.C.; the Rev. Maurice Philip Clifford, D.D., 47, Great Ormond Street, W.C.; Samuel Harraden, Esq., 32, St. John's Wood Park; W. H. Sherwood, Esq., M.R.C.S., Colonial Hospital, Bathurst, Gambia; John Underwood, Esq., M.D., George Street, Hastings.

The following presents were announced, and thanks were voted for the same:—On the motions of the human feet; on the loss of muscular power in the feet; the foot and its covering, by James Dowie, Esq., F.A.S.L. (the author). Malay wooden sandal, Cape Town; Damara sandal, eland skin sole and koodoo skin thongs; Bechuana sandal from Lake Ngami, sole of brindled gnoo and thongs of koodoo; Cheeka or loin cloth, goat skin from Lake Ngami; Piece of giraffe skin as used by hunters for soles for velschoen; Bushmen's sticks for procuring fire by friction; Cap of palm leaf, Lower Zambezi (T. Baines, Esq.)

The names of the following gentlemen nominated as Auditors were announced:—George North, Esq.; F. L. Cotton, Esq.

The following papers were then read:—

On Two Australian Skulls. By H. G. ATKINSON, ESQ., F.G.S., F.A.S.L.

Extract from a letter received by H. G. Atkinson, Esq., F.G.S., F.A.S.L.

"They are the skulls of natives of New South Wales, dug up on the estate of my brother-in-law, Captain Ogilvie, on the Hunter, and brought home and given to my father by Mr. Cunningham, the author of a work on that country. I remember his pointing out some indentations in them, and explaining that almost all the same skulls found of this kind had such on them, arising from their mode of

warfare, which consists in one standing quite still while his adversary strikes him on the head with the waddy, and he in turn striking the next blow, and so on, till one is either killed or disabled—a curious style—he who has the thickest head must be sure to be victor. Should Mr. Atkinson wish to compare them with others of the same family he will find one at the Museum of the Zoological Society. My brother-in-law sent over an entire skeleton of a young native girl as a present to Captain Marriott. It was looked on as a great natural curiosity on account of the skin being entire over the bones, and the hair which was long and black still attached to the skull."

On the Idiotic Family of Downham, in Norfolk. By H. G. Atkinson, Esq., F.G.S., F.A.S.L.

The family are, or were, residents of Downham, Norfolk, and the account I received from Mr. Brown, a farmer in the neighbourhood, is as follows:—"Of this family there are three sisters and two brothers; their names are Susan, Mary, Maria, Thomas, and John Franklin. The parents kept a low public house. The moral character of the man was not good, he was a drunkard and of very inferior intellect; the woman was inoffensive and of weak intellect. The father died at 72; the mother at 50; of the children, John died at 47; Thomas at 40; the sisters are still living (1845), Susan, aged 60; Mary, 55; Maria, 50. Susan and Maria, like John, are not much more than brutes, except that they can talk. Mary can read a little and sew, and is willing to do as much as she is able; Susan and Maria could never be induced to do anything whatsoever. Of the brothers, Thomas was a curious character, was fond of being with horses, and of riding, and he could groom a horse well; was fond of soldiers, and of going to see the players, and he could imitate what he had seen; but you could not depend on the truth of a word he said, and he would pilfer whatever came in his way. John was also fond of seeing the players, but never attempting to imitate, and when you met him always said that he expected the players next week; but, with a careful person with him, would work at common labour tolerably well."

I am sorry I could not get this satisfactorily identified, and I dare say now all concerned are dead; but the general fact of a whole family of idiots with manifestly defective brains is very striking. The parents, to take to and keep a public-house, and bring up these poor creatures, could not have been so very deficient of intellect, as intellect goes with suchlike—or, if so, the question of hereditary taint is the more important.

The thanks of the Society having been given to Mr. Atkinson for his papers,

Dr. THOMAS BALLARD observed that he had peculiar views as to the origin of idiotcy, which he should be glad to bring before the notice of the Anthropological Society. The condition of idiotcy was generally supposed to be hereditary, and to depend on some moral or physical defect of the parents; but he believed that opinion to be a mistake, and that idiotcy depended on the blighting of the individual in early infancy. He had examined a great many idiots, and traced their history; and he had found the case of all to have been a common one. It was a condition of severe illness in early infancy; and, when circumstances occurred to ward off a fatal result, the individual, when he grew up, was idiotic. He had had one or two cases of infants who had recovered from such illness, which had been followed by idiotcy. The nature of the illness was extreme diarrhœa, followed by convulsions and general emaciation. In such cases, the diarrhœa was caused by a fruitless effort to obtain food by sucking, a continuance of which leads in many instances to the destruction of the stomach. The fact of idiots generally having been exposed to this evil, is shewn in the frequency with which habits of constantly sucking the hand or the tongue are retained among them. It was not difficult to account for several members of the same family being idiotic from the same cause. In a family in London, several members of which were afflicted with idiotcy, the effect had been traced to this cause. They were all accustomed to habits of continual sucking, and had been subjected to the same condition of illness in their infancy. The important practical point resulting from this view of the subject is, that idiotcy may occur in any family, or may be prevented in all.

Dr. GIBB said the view of the subject of idiotcy entertained by Dr. Ballard was now attracting the attention of the medical profession. In the Westminster Hospital, infants were observed who had the habit of sucking their thumbs, and it was considered of importance to stop it, as it was found to injure their health. Dr. Ballard's opinions could, indeed, be well borne out; they were well worthy of attention, and many medical men had become converts to his doctrine. It was explainable in this manner. The habit of sucking injured the system by inducing infants to swallow the secretions of the glands of the mouth, intended to be mixed with food, and, when swallowed without any, they produced injury to the digestive organs, and the constitutional powers became enfeebled.

The following paper was then read:—

On the Primary Anthropoid and Secondary Mute Origin of the European Races, versus *the Theory of Migration from an External Source*. By the Rev. DUNBAR I. HEATH, M.A., F.R.S.L., F.A.S.L.

THE object of the present paper is to state, to weigh, and to balance between the difficulties attendant on two opposite theories of the origin of the European races of men. One view originates them by natural descent out of European mutes, themselves the offspring of anthropoids; the other explains the first human peopling of Europe

by migration thereinto of other fully developed human speakers of articulate language from the east.

By using the word Europe, I do not mean to fix attention on any limits in geography. I do not mean that the arguments I am about to adduce will not apply to some larger area, so as even to include Asia Minor and Persia; and by using the word east I do it for brevity's sake only. I picture for my readers under these two names merely the present domiciles of the Aryan races and the spot whence formerly their languages were developed. Under the word mute, too, I include the utterer of inarticulate sounds.

Opinions change, and knowledge increases rapidly on the subjects about to be touched upon; so rapidly that I can hardly lay down any distinct aggregate of statements, and say, such is, at the present time, the generally received, or consentaneously accepted opinion. If, however, any one result seems to be unconsciously and yet generally held, it does seem to be that there was one particular sequence or order of events in the early history of mankind. Two things having been done by mankind, all writers on these subjects have, I believe, tacitly, and perhaps unconsciously, assumed that one of them was done before the other. Owing no doubt to traditionary views, the supposed sequence in man's earliest days has been, the speech of man first, and his locomotion or dispersion second. It being evidently possible for man to exist without articulate speech, and it being as evidently impossible for him to do so without multiplication and dispersion, I purpose to inquire whether that which is less necessary did not arise at a later period in man's history than that which is indispensable to him.

The views expressed as to the actual origin of man are no doubt various. Some writers disperse him from one centre, and some from many. Some explain all things by Adam and Eve, but even Homer sometimes nods, and many of these have to admit their land of Nod, where Cain found cities built and filled by human beings of the age of bronze and iron. Some indeed seem almost inclined to recognise something like an origin in Asia from Mongol red anthropoids previous to man's dispersion in the image of God into the Aryan and Semitic zones, but in all cases the difficult, special, and distinctive art of articulate speech is supposed to have been practised previous to the dispersion or dispersions; and the comparatively easy process of moving fifty miles down a river to a new fishing station is postponed, theoretically, till the moving being has perfected himself in the use of five hundred roots, expressive, each one, of a general distinct idea.

The name given to the young of the human race is infant, *i. e.*, the being that cannot talk. His earliest great operation in life is to take his food, his next to acquire the power of crawling on the earth's surface, and not for a long time does he speak, or pass from infancy. The human race, however, while in words we talk of its infancy, is supposed in fact to have first talked its five hundred roots, then to have gathered fruits, hunted prey, and tilled the ground, and then only, during vast periods of years, to have crawled its thousands of miles on the earth's surface, still with flint weapons only, and bone needles, wherewith the wool-covered elephant and cave lion of those old days should be kept in order.

Now, to propound in plain English that man is derived in lineal descent from apes would no doubt offend many prejudices, but we must give the best attention we are able to the facts bearing on the subject, and especially to that very wonderful phenomenon of language called "Grimm's law," and if, for instance, we find it impossible to imagine any origin for this law among European nations, except on the hypothesis that those nations, when reduced to slavery by the Aryans, were mutes, such a result would be a long step to what I have called anthropoid European origin. Even this, however, would lead us only half the distance between the two views of the origin of Europeans, which are the only ones usually discussed; for the idea of mute man is half way between that of anthropoids and fully developed speaking man. If, on still further consideration, we see reason to suppose that mute man, walking erect, on two organs only of locomotion, would be unable so far to overcome the powers of nature as to disperse himself over territory of all kinds, thousands of miles in length by thousands in breadth, and if apes, on the other hand, we know as a fact are found as actual early occupants of such territory, such a result would be such a further step in the direction of man's anthropoid origin as to finally reach that hypothesis.

There are in fact three tenable hypotheses as to man's dispersion rather than two. Man might have first filled Europe as speaking man. Man might have first filled Europe germinally and potentially as anthropoid ape. Or he might have filled Europe first as mute but as man—that is—with the *dis*advantage (I should think) of two organs only of locomotion instead of four. In this paper I admit an immigration of an Aryan speaking man into Europe in a state of development when animals had been domesticated and family life established. I also recognise, on the evidence supplied by geology, a time when anthropoid apes existed all over Europe. I do not admit that the Aryans filled Europe *first*. Geology, on the contrary, shows us, I believe, the anthropoid, well back in the tertiary epoch. Thirdly, I admit the beings of the drift, the bone caves, and the kitchen-middens. Now in plain English, or plain Aryan, I believe we none of us think the beings who made bone needles in the caves in the south of France were beings who called the needle aiguille. Aiguille is from aculeus; aculeus is a diminutive from ac; ac in Sanskrit is sharp—acul, then, is a little sharp thing, even as equus a horse is ac-was a sharp-goer. Many of us may say these beings were Laps or Finns. Now, if there be any novelty in my own view, it is this. I say very likely these beings were the bodily fathers and mothers of those who afterwards spoke Aryan or Lap, but at the time the Aryans or Laps came among them they were mutes. I only in this paper allude to, I do not dwell on, the difficulty of man's dispersion. I do dwell on the difficulty of man's learning articulate speech, and I say that the present phenomena of his speech in the Aryan zone show he was once mute. Doubtless if he was once mute over very wide areas, then the phenomena of his dispersion over those areas would tend to show he was once anthropoid.

The statement that a mankind speaking articulate speech dispersed

itself abroad so long ago as the age of the glacial drift, contains two propositions, and it is twice as difficult to accept the two in consecutive combination as either of them separately. It is difficult to realise a mankind learning speech. It is also difficult to realise a mankind dispersing itself. By supposing a Europe filled with mutes, the first difficulty is much diminished, for it is much more probable some genius among the mutes would invent articulation somewhere in all Europe, than in any one narrow original seat of the race. Again, the theory of man's origin primarily from anthropoids, and, secondarily, from mutes actually on the soil of Europe, has the advantage of requiring no theory at all about any original anthropoid dispersion, for the existence of anthropoids in the post-tertiary geological epoch is no theory but a well known fact. Thus the principal difficulties as to man's dispersion so long ago as the glacial epoch seem after all self made. We fall into them only by denying that the known dispersion of anthropoids in Europe is potentially the dispersion of man. Let us suppose that mankind should have gradually begun to speak articulate language, at some one definite locality, only after man's previous mute appearance for many ages in one, or ten, or ten thousand localities. By this means our *à priori* difficulties will be reduced to a minimum.

The above few general observations will acquaint the reader with my stand-point. I do not, of course, in such a matter, deny the abstract possibility that the human contemporaries of extinct animals in the glacial epoch may have enjoyed the use of five hundred linguistic roots. The question is, however, one of probability as compared with other rival hypotheses, rather than one of possibility, *per se*. I find it extremely difficult to state what definite clear views have been expressed anywhere on this subject. I feel rather like the coachman who, when asked what was the average price he gave for his horses, said they differed so much there was no average. All that I can see clearly held and kept to is that man was taught language and locomotion at the same instant of time by the agency of forces purely hypothetical—so hypothetical that they are only supposed to have acted to produce speech and locomotion at that one instant, and never to have acted again on men from that day to this. Knowing nothing about such supposed events myself, I confine myself to the accepting and explaining known and knowable phenomena. It is known that anthropoids existed throughout Europe. It is knowable that they became mute men. It is knowable that these mutes grasped after articulation, and in a few spots attained to it. Those who did so at one particular spot I call Aryans, whether that spot was in Asia or in the submerged continent of Atlantis; and lastly, it is knowable that roving bands of Aryans seized upon the principal kitchen middens of the inarticulate speaking Europeans and then taught their roots, with the uses of them, to the European mutes, descendants of anthropoids now known to have been actually in long previous possession of the soil.

I proceed, therefore, to state the difficulties against the various hypotheses here mentioned, and first against that of European origin. There are but two that I know of. First, it has been stated that the

anthropoids, being brutes, could never have formed general ideas, nor with each idea associated its own corresponding root. The power of doing so is alleged by Max Müller to be distinctively and exclusively human. This is by far the heavier objection; but again, it may also be alleged, that the actual reception by all Europe of Aryan language proves the bodily inroad thereinto of Aryan races at the beginning. If the language had arisen by autochthonous developments, it is argued there could not possibly have been such radical connection between the Latin, Gothic, Welsh, etc., as now actually exists.

These two are the objections I shall consider against the view of autochthonous or anthropoid development. Against that of migration from the east, the most obvious and easy to appreciate is the difficulty of such migrations to savages previous to the glacial epoch; but another far stronger, when fathomed, is the existence of Grimm's famous law, the origin of which it is on my own view so easy, and on the common view so absolutely impossible to explain.

It will be as well perhaps to state here, before proceeding further, that I need take no notice at all of any historical or præ-historical action of Aryans or Turanians among themselves, whether by conquest, or amalgamation, or transition of one race into another. That certain Aryans, for instance, may once have come in bodily and founded the city of Marseilles on the shores of the Mediterranean may be quite true historically, but it has nothing whatever to do with the origin of the earlier races contemporaneous with extinct animals. Any known migration of a tribe will have its known results, and to these due attention should be given; but we are talking only of the very earliest original migration, if any, and to prove ten consecutive conquests when the conquerors had kings and horses, hounds and ships, and complex built-up words, will not go any length at all towards realising any original occupation in the period of chipped flint instruments for warfare, and bare roots for conversation.

No migration of people covering up their roots by affix or suffix, as all known Aryans did, in all known times, can explain Grimm's law, which has to do with the very roots themselves. The very act of speaking inflexioned language protected the roots themselves; and to show that a set of built-up words have changed their outward circumstances ten times over in a thousand years, is no step at all towards explaining the wonderful transfiguration of essential inward central roots, which has hitherto received no shadow of any explanation.

A deliberate opinion of Professor Max Müller on any subject in the science of language will command unfeigned respect and attention. This learned and popular author stands out firmly and solidly for an insurmountable unsurpassable separative distinction between man and brute. To those who accept his dictum on the subject (a most baseless and untenable dictum as I take it to be), it will be lost labour for me to explain even Grimm's law on a theory of anthropoid development. Taking, says he, the apes at their latest, and man at his earliest, the gulf between them cannot be bridged. Development of throat, or foot, or thigh, he may admit in ample quantity since the

tertiary epoch for the physical man to emerge from the physical anthropoid, but the power of conceiving *general ideas* he considers to be the peculiarly distinguishing *human power*. The anthropoid might indeed say *dar* when he *tears* a cocoa nut, but to say dar when he tears also anything else requires the power of conceiving the general idea of tearing, and this, says Max Müller, distinguishes humanity.

In former days, indeed, the "general ideas" supposed to distinguish humanity from brute, were not those somewhat vulgar ones of tearing, scattering, crossing, etc., etc., but the grand platonic ones, such as justice, beauty, order. These ideas Max Müller quite rightly and scientifically sweeps away as distinguishing us from brutes, because he proves a time when man could no more express them than a brute can. If man could once only say the dawn for what he afterwards called God, and clean and straight for what he afterwards called good and just, then we may no longer say man is essentially distinguished from brutes by being able to conceive and say such spiritual ideas as God, and good, and just, but by being able to express the physical general ideas of dawn, and clean, and straight. This is, no doubt, rather a step downward in our previously imagined dignity, and to Max Müller the great task seems to have fallen of popularising this immense concession to truth against the strongest prejudices.

The value of Max Müller's success in this task is such that it has hardly as yet been appreciated. Surely, however, he carries his adherents the greater part of the road with him by this theory towards the consistent and comprehensible statement that man was developed by natural selection from the previously existing anthropoids. The opposite view used to be that a being was created in a Persian garden much advanced beyond anthropoids in spiritual development, a being who had at least so much spirituality as to have a knowledge of God, with appreciations of right and wrong. The mind naturally falls into the idea that it would be even worth the supernatural interference of a deity to create such a being as this. But we now find an idea popularised with great power and success for the acceptation of the English public, which is certainly not such as this. The primæval, according to Max Müller, differs distinctively and radically indeed from the anthropoid; but how so? Not by his spiritual status, but by his power of forming and expressing five hundred purely physical general ideas, such as tearing, scattering, crossing, etc., etc.; not tearing, scattering, or crossing any one individual thing or person, as a brute might, but generally things and persons in general.

Now when I meditate upon this theory thus put forward by a man of talent and knowledge as a strong barrier against the opposite theory of development, I ask myself in the first place, am I, as a man, more closely sympathetic with a being who expresses a general physical idea, than with one who simply expresses particular ideas? If on a high tree I see a rook placed as sentinel, and every time he sees one particular danger he expresses it by the word caw, should I feel myself more closely connected with him in the classifications of natural history, if I could prove his word caw meant danger in general? Such a classification would seem to me quite untenable, and to me indeed Max Müller's

distinction seems quite imaginary. When a herd of wild elephants coming down to the water side at night, posts four leaders at the corners, and remains perfectly still for three hours, then, in one moment, on a signal from the leaders, rushes headlong into the water with the wildest gambols, and again, on another signal being given, subsides into perfect immobility, that seems to me quite as strong a proof that they have the general idea of danger, as any one's negative assertion on the other side could be, that they only have the idea of some particular danger. When a domesticated dog remains between his master's feet, he impresses me with the view that he has the general idea of security, while the half grown puppy, ready for any romps, has the idea of play in general with any body or any thing. So the dog taught cleanliness at home is cleanly in all houses, and the hunting dog seizing the disabled prey shakes it dead, then dropping it leaves it, and then returns to give it another shake, because a doubt has crossed his mind on the subject of the particular creature's death, but the general idea of death must, in my opinion, be in him, by which alone such actions can be explained.

So again when a fox-hunting dog foregoes his strongest native instincts by not hunting hares, and a hare-hunting dog contemptuously foregoes his low desires for attacking rats, I for my part recognise in these dogs a capability for carrying on the general business of dog life, but I do so only by perceiving they must have the general idea of game, and the general idea of vermin.

To the first argument, then, against the possibility of there having once existed a mute mankind I attach no weight. Quite the contrary. I find elephants and rooks able not only to form but to express general ideas; and if professor Max Müller be right in tracing human language back to the stage when nothing but a few general physical ideas were expressed, I see herein a great probability that certain mutes, inarticulate speakers, or anthropoids, known to have existed in tertiary epochs, acquired, in the struggle for existence, the habit of articulate expression. The next argument I said I would mention is the following:

The words used for the commonest objects are the same all over Europe. Such words, for instance, as wasp, fish, wolf, father, mother, one, two, three, etc., etc. This proves, it is said, that the preponderating masses of the populations must have poured into Europe from a common origin. A conquering army here and there could not have produced such a wide spread effect. Warlike or courtly words in such a case might have been introduced, but the identity of words used by all parties alike in daily life proves, it is said, a common external origin of the masses.

Now to this I answer, no doubt it would go far to prove it, unless those masses were mutes when the linguistic influences in question were brought to bear on them. The Normans I grant could not destroy the Saxon names of live animals, nor the Saxons eradicate the British names of places. I grant that languages are not easily destroyed, except by annihilating the speakers. The traces of Welsh, the traces of Latin, the traces of Saxon, have not been destroyed in

England. But this I say is because articulate speech existed previous to Latin or Norman conquests. If the Latins had been mutes it would be absurd to seek for traces of Latin in this island, and if the natives that lost the battle of Hastings had been mute, I argue that a hundred Normans winning that battle would have sufficed to educate all England into saying a quater-jambed mutton instead of a four-legged sheep.

Suppose now that from finding certain bones and implements in England previous to the battle of Hastings, we had only the same evidence that human beings existed in England previous to that battle, as we have that they existed in Europe previous to Aryan linguistic influence. Suppose we no more knew whether Hastings was won by ten or by 50,000 men, than we know whether Europe was Aryanised by ten or by 50,000 Aryans. Suppose, finally, the words in England for wasp, fish, wolf, father, mother, one, two, three, etc., etc., were Norman, then I say one of two things would follow. Either the 10 or 50,000 Normans, annihilated the previous inhabitants, or those inhabitants were mutes. As applied to Europe and the Aryans, the former of these two hypotheses has in general been accepted; but it is to the substitution of the latter, as an alternative, that I am led in this paper by a calm consideration of the difficulties on either side of the question. For myself, then, progressing in my designs of weighing the arguments for and against mute origin, as compared with migration of articulate speaking races from the East, I decide that I see nothing overwhelmingly strong as yet against our origin from inarticulates or mutes, and on the contrary I am more and more led to lay down the following recapitulations.

Europe is known to have been peopled over vast areas during vast periods. The inhabitants, therefore, must either have been mutes, or during that vast period and over that vast area they must have developed a large number of dialects or languages. Their population, too, must have been considerable. Now the greater their population, their dispersion, and their number of languages, the greater would have been the difficulty of the Aryan immigrants, in introducing the common words of daily life; but if the Europeans existed previous to the Aryan linguistic influences in a mute or anthropoid condition, no such difficulty would have occurred, and in fact the commonest words of daily life would have had a better chance of being alike throughout Europe, than words not quite so common.

The Lap or Finn difficulty may also be well explained by the theory of the original mute condition of the Europeans. If the Laps once covered all Europe, their language would not have disappeared so completely, but if the original mutes were taught language from two sources, one Lap and the other Aryan, the existing phenomena would naturally have arisen.

My argument from Grimm's law for the former mute state of man in Europe may now be prefaced by a few observations on the organs of speech.

Suppose then, a mute and a speaking man be each about to learn a language from a foreign teacher. The organs of speech in either are

the immoveable palate (including the teeth), and the moveable throat, tongue, and lips. Now it will appear, upon a little consideration, that a mute would make use of his palate much in the same way as a speaking man, simply because there is hardly any way in which his palate could fail him. At any rate, his palate is surely a less difficult organ to manage, than his moveable tongue or throat. The palate in fact, being a mere passive recipient of certain pressures applied by the tongue and breath, it would seem that any error of articulation must be in these actually active organs, which are likely enough to fail a beginner, and in the nature of things would fail a being unpractised in the use of them for the niceties of articulation.

Now, with the exception of a few "dialectic differences," it appears to be exactly in the use of the palate that the Aryan speeches show their similitude, and in the action of the tongue and throat are found to lie the distinctive differences. In those organs of speech which mutes can use at once, without practice, the Aryan languages are alike, and in those organs requiring practice, those nations differ.

By a root being common to two languages, we appear to mean that the same parts of the palate are used in speaking, the words having some traceable community of meaning, but we do not mean that the same pressure of tongue, or the same force of breath is used. Thus pater and father are said to be the same word, because with a common meaning no part of the palate at all is used in the first syllables *pa* and *fa*, and in the second syllables *ter* and *ther*, the part close to the teeth is used in either case. Each syllable, however, of the word father begins with what is called an aspirate, and thus the difference of the words lies in the use of the throat or breath not of the palate.

On each part of the palate we distinguish two amounts of pressure exerted by the tongue, and each of these amounts may or may not be combined with a force of breath emitted from the throat. Thus *t*, *d*, *th*, and *dz* (or)z might all be spoken articulately with a vowel, though a small portion only of the palate close to the teeth might exist in the speaker.

Now in a very large amount of words, expressing the very commonest objects, it appears the same parts of the palate are used all over Europe. The exceptions to this rule are classed under the name of "dialectical differences" as opposed to "phonetic growth or decay." I do not notice dialectical differences, because my argument for the former mute condition of the populations enslaved by the Aryans does not require that the palates of the conquerors were afterwards always used aright. Suffice it that the pressure of the tongue and the force used by the throat, vary in a very wonderful way in Europe, as is stated by what is called Grimm's law.

It is very important to observe that this law is not a law about nations which *could not* use their throat and tongue aright, and therefore fell into errors owing to a defect of organisation. The French *cannot* say the word three, and do not; but the Germans, who say drei, and the English who say three, *can* each pronounce the word with a *t* if they please. If there were reason to suppose that the Goths once

could not say *drei* or *tres* from inability, and the high Germans could not say *three* or *tres* from the same cause, then Grimm's law would require no further explanation, than that of simply stating the facts. The inability, I mean, would rather have to be accounted for than the law itself. Inability to speak alike among the Aryans can, however, only be pleaded in a very few exceptional cases. That they use their palates alike, but not their throats and tongues, must have arisen from some very different reason.

Grimm's law states, in the first place, that if two Aryan languages have any one root in common, that is, if the same parts of the palate are used to express any root, and if any difference of force of tongue or throat is used, that same difference is found universally in every other root common to the two languages. Thus, if tres in Latin is three in Gothic, by using more breath, and drei in high German, by using more tongue force, then in every other root common to these three languages the same difference must occur. For instance, torreo in Latin is connected with thirst in Gothic, and durste in German. Tu in Latin, thou in English, and du in German, tunc in Latin, then in English, denn in German, etc., etc.

This law, so far as I have here stated it, is of itself sufficiently surprising when we cannot admit any want of ability in these three nations to pronounce their common words alike. In order to prove however want of will, in order to prove in fact an ancient conspiracy or determination among the aristocracy of these nations, to admit wrong speech (among their slaves probably) where right might have been had, we must find more than this one instance of these methodical sets of charges.

Take, then, the case where the Goths (or English Germans) used the least possible force of either breath or tongue. Instead of taking such a word as *three* where there was a small force of tongue, but a breath spent with it, take the word *tooth* which begins with a simple t. Here the Latins, Kelts, etc., use more force, saying dens, dant, and added to this greater tongue-force, the high Germans use a strong breath as well, saying dsahn or zahn. So English ten, Latin, Greek, Welsh, decem, δεκα, deg; German zehn. English, to tear; Greek, δειρω; German, zerren, etc., etc.

I have given here but two sets of changes. The aggregate of these with many similar ones, constitutes Grimm's law, for the origin of which no explanation has I believe hitherto been suggested. I note indeed Max Müller's statements how certain tribes "spent" the letter *t*, and "were driven to adopt" *z*. The "pressure was felt once more" and "they had to employ" *th*. "They had really robbed Peter to pay Paul." "They fixed *d* in their national utterance as *t*." If the professor has a distinct theory as to how this very wonderful set of changes took place so methodically and universally, I have failed to understand it.

Now in this law I see an argument in favour of the origin of Europeans from the aboriginal mutes enslaved by the Aryans. That the aboriginals were enslaved by the Aryans is I suppose a common view, for few would suppose the mighty Aryans to have been themselves

the cave contemporaries of mammoths and lions. Few, I say, consider the makers of the bone needles in the drift period to have been Aryans. Were they then mutes or not? Did they when enslaved by Aryans receive the power of saying "a little sharp thing," as they now say it? If they used articulate speech and were not Aryans, how came the words for needle and a thousand other words of daily life to be so completely supplanted by Aryan words? Now the Aryans somehow or other have arrived at a common use of the palate, but not of the throat or tongue, and the variations in the use of throat and tongue follow fixed laws.

I explain Grimm's law as follows:

The palate is a fixed organ. Teach a mute to press his tongue against the different parts of his palate. So far as the mere palate goes, no control of any muscle by the will is requisite. The difficulty lies after all in the moveable tongue and strength of breath. Now if the aboriginal to whom the Aryan teacher or conqueror comes should be a speaking man, practised in these organs, and the said Aryan should wish him to say *bad*, I see no reason why the man should not say so, for we must remember the facts show there was no organic want of ability, in the case we are discussing. If, however, the aboriginal be a mute, he would very likely say *pat*, but in neither case does there seem to me any probability of his saying *kaq*, or of the Aryan being satisfied for his own purposes, with his saying so. The teacher, however, who heard the mute say *pat* for *bad*, would in the first place understand him, he would also very likely be amused, and would also probably have no great objection to his slaves talking slavishly, as distinguished from his own aristocratic Aryan self. He would, of course, save himself all unnecessary trouble. Hence he would consistently allow him and in fact encourage him, to say also *pet* for *bed*, and *pit* for *bid*. It will, of course be obvious that, unless actively discouraged, the mute who once said *pat* for *bad*, would *naturally* say pet, and pit. This natural falling into the wrong use of the tongue on the right part of the palate would *only* be *natural* on the hypothesis I have suggested. If 50 Aryans seized a kitchen-midden with 200 mutes the events would follow. Nothing of the sort could take place between Normans and Saxons, nor between existing languages, one of which is supposed to have disappeared after several generations, as Swedish will in the United States. The more I meditate on this hypothesis, the more I can realise it, and Grimm's law is now explained, for exactly as pat, pet, and pit, are in one place supposed to have been articulated, so another teacher in another part of Europe would find his slaves saying vath, veth, vith; or fadh, fedh, fidh, but this would take place regularly only on the hypothesis of mute pupils, and any such variation once made by the pupil's unpractised tongue, or throat, must for comprehensibility's sake have been carried out consistently into every word acquired from the teacher's language, and these words would be exclusively the common ones of daily life. In this way alone no confusion would arise, and in this way I connect Grimm's law with the original mute condition of Man in Europe.

It will be seen by those acquainted with Grimm's wonderful law

that for simplification's sake I have most imperfectly described it. In order to give a little better idea of the facts, I will now, in imagination and in conclusion, invade the domains of those who advocate the origin of Europeans from one centre. I will suppose myself to be at the original Aryan home itself. What do I find there?—an intelligent community, well able at any rate to do two very important things, viz., to talk, and to increase their numbers. Being pressed for room, they send out in the course of time three colonies: one for Cashmere we will suppose, one for Khiva, and one for Orenburg, south, west, and north-west. We will suppose further that these universal Aryan fathers possess 100 roots beginning with *p*, 100 beginning with *t*, and 100 with *k*; also 100 with more breath in pronouncing each of these, and 100 with more tongue force, making thus altogether 900 roots. And now behold the wonder. In the course of further ages, we visit the supposed descendants of these men who, by the hypothesis were from the beginning fully able to distinguish these nine uses of their organs. We find the alleged descendants still fully able to distinguish them, but to every one of the 300 *p*, *t*, *k* roots, one set of alleged descendants have added tongue force, another set have kept the same tongue force but have added breath.

The facts are that tres, θυγατηρ, and dens, and such words, among one set, have become three, daughter, and tooth, and such words among another; and drei, tochter, and zahn in another; and that similar changes, without I believe a single exception to the rule, occur wherever the common roots have been preserved. The question, then, is: How, why, or when, could, or should the men of the supposed Khiva, Cashmere, and Orenburg have done all this? For my part I can only conceive it happening by these colonists finding at these imaginary places or elsewhere a set of mutes numerically much predominating over them, and the *modus operandi* would be then, perhaps, as follows:—

Kitchen-middens, or settlements of the mutes, would be seized upon at different times and places by certain speaking tribes. Among the mutes there was a perception of the advantage of speech as of any new metal or food. Among the Aryans a perception quite as strong no doubt existed as to the advantage of enslaving the mutes for the sake of their labour. Slavery elevated the inferior races as usual. Amalgamation probably took place. Language was correctly acquired so far as the use of the fixed organs of speech co-operated, but errors were tolerated, provided such *rules* of error were adhered to as would allow a comprehension of the slave jargon by the masters. These errors, if established among previous mutes, would be naturally in the use of the tongue and throat. The fact that the Sanskrit is the most methodical of known Aryan languages, tends to show that the instruction of the mutes took place not long before the formation of Sanskrit, as the attention of the Aryan Pundits would be powerfully drawn to the subject of distinctions of voice by so mighty a task as had fallen to the lot of their people.

The subject of the development of these supposed mutes out of red anthropoids may be kept for another time, as surely that of mutes into articulately speaking men is enough for the occasion.

Mr. L. O. Pike said, he hoped he was free from those prejudices of which Mr. Heath had spoken, and he would leave it for other gentlemen to object, on sentimental grounds, to an anthropoid mute considered as a gorilla and a grandfather, while they welcomed the negro as a man and a brother. He, like the author of the paper, was of opinion that the brutes had general ideas, if men had them. He had supported that view by precisely similar arguments directed against the same opponent, Mr. Max Müller, in a paper read before the same Society, less than two years ago. But he could not, therefore, admit that there was evidence, from language, of the ape-origin of European races. He would ask Mr. Heath whether he supposed that the negroes of Jamaica, who spoke a language in which no trace of African was to be found, were descended from anthropoid mutes upon whom the English had imposed their language? Moreover, he did not admit that Mr. Heath's statement of Grimm's law was correct. In the languages to which that law applied, viz.: firstly, the Sanscrit, Greek, and Latin; secondly, the Gothic; thirdly, the old High German; there was no sign of difficulty in pronouncing any of the sounds to which the law referred, with the exception of the *th* in the High German. With that single exception, none of the sounds were, according to Grimm, absent from any of the languages. He thought the importance of Grimm's law had been greatly overrated; it was but a rule, to which there were many exceptions. Of so little importance, indeed, was this so-called law, that among the same people—the Germans, for instance—there was a confusion in the sounds of certain letters. As an example, he referred to Lewes's *Life of Goethe*, in which evidence was given that *p* was confounded with *b*, and *t* with *d*, by actors on the stage. He then referred to the Welsh language, in which a word is so modified by the word preceding it, that it goes through the whole round of changes, to which Grimm's law refers, in the mouth of the same speaker.

Dr. Seemann observed that the confusion in the sound of letters alluded to, was observable only in one part of Germany, viz. Saxony. He said that there are some Spaniards who cannot perceive the distinction in the sound of *b* and *v*.

Mr. Reddie said he should be sorry, after having been told how we had risen from being mute to be speaking men, to remain mute on that occasion. He agreed with Mr. Pike in disputing Grimm's law, and it appeared that Mr. Max Müller disputed it also; if Grimm's law was as the author of the paper stated, he had treated them with a *reductio ad absurdum*. Mr. Reddie proceeded to point out the inconsistency into which philologists were driven, who accepted that law. On the question whether man was derived from apes, he hoped to have some more general issue raised than had now been brought forward; and he trusted the Anthropological Society would not accept the author's views merely on the ground that there were difficulties in accounting for the origin of language. One thing was clear, that there has been some "confusion of language" (or *lip*) in the world, and it was a hard puzzle to discover how the confusion arose, if we discard the old traditional account.

Dr. Charnock objected to the use of the term Aryan, as having no

more definite meaning than those of Caucasian or Japhetic, which it replaced. The district marked out included several nations, speaking languages of different construction. With regard to the supposed loss of words in the Lappish and Finnish, he had not discovered such loss. We had ample lexicons of those languages; and very many of their words were to be found in the Esthonian, the Hungarian, and also in the dialects of the Ostiaks, the Tschuvashes, the Vogules, the Votiaks, the Permians, the Syriaens, and other tribes inhabiting Siberia and the banks of the Volga. With regard to the interchange of radicals, he observed that both the Spaniards and the Gascons confounded the letters *v* and *b*, which gave rise to Scaliger's pleasantry on the latter people, "Felices populi quibus *bibere* est *vivere*."

Dr. BEIGEL considered the expression of a mute man a contradiction in terms, for a man cannot be a mute. The organs of the mouth, which had been mentioned as most essential to speech, were not so. The teeth, the tongue, and the palate, were said by the author of the paper to be the most important; but that opinion was erroneous, for the larynx and the ear were the principal organs required to produce articulate sounds. Those who could not speak were dumb, not because the organs of the mouth were defective, but because they could not hear. A man without teeth could speak well; he could also speak without a palate, and even without a tongue. He had lately known an instance of the kind; and there were five or six similar instances on record. The reason why brutes cannot speak is, not because they want the necessary organs of the mouth, but because they are not possessed of reason, are unable to form general ideas, and cannot sufficiently distinguish different tones.

Professor MAX MÜLLER, having been called on by the President, said he should have preferred to have remained mute, and having listened only to the latter half of the Rev. Dunbar Heath's paper, he should have to confine his remarks to those parts of the paper which referred to Grimm's law. If that law were as represented by the author, then indeed the explanation offered might have deserved consideration; but he denied that Grimm's law had been correctly stated. There was no evidence of any difficulty having been experienced in any one of the Aryan languages with regard to the pronunciation of the *tenuis*, or the *aspirate*, or the *media* of the three principal classes of consonants, guttural, dental, labial. The nine consonants which are alone affected by Grimm's law, and which constitute the foundation of Aryan speech, are pronounced without difficulty by the Goths, as well as by the Greeks, Romans, and Hindoos. What has to be explained is, why the Goth pronounces an aspirate where the Greek pronounces a tenuis, a media where the Greek pronounces an aspirate, and a tenuis where the Greek pronounces a media. He did not consider there was anything gained by supposing the original inhabitants of a country to have been mute, and to have experienced any difficulty in imitating the sounds of their supposed teachers, in order to explain the existing variations in the pronunciation of letters, and the changes that have been pointed out by Grimm in words common to Greek, Gothic, and High German.

The Rev. DUNBAR I. HEATH replied to the remarks that had been made on his paper. With regard to the objections of Professor Max

Müller, he must confess he could not understand them. He (Professor Max Müller) had said that he had inadequately described Grimm's law, and admitted that, if the law were as he had described it, his theory might be worth considering. It was for simplicity's sake alone that (as he had said in his paper) he had only partially described the wonderful law. But the Professor had said nothing at all about the origin of the law. With regard to what had been said about the changes of the sounds of words by people who could speak as well as by mutes, a word here and there might be changed, but not in accordance with such a law. The law seemed to him to show at least a functional, if not an organic, incapacity among those who originated it; but such an incapacity did not exist among speaking men. He could not conceive how a people migrating from a central point could be able, when disseminated, to alter so methodically, and misuse the nine sounds which were said to be the foundation of Aryan language; and it was admitted by the Professor that an explanation was required. The rev. gentleman quoted a passage from the work of Professor Max Müller, which he conceived supported his view of the case.

Professor Max Müller said it was impossible to enter fully into the subject of the origin of language on that occasion. All he wished to say in answer to the remarks of Mr. Heath was, that the explanation proposed was not sufficient to account for the existing differences. If they could be explained in that way, he would be glad to accept the theory. Certain mutes were said to have been conquered by a speaking people, and when they heard one sound to have pronounced another. Why they should have done so, we were not told. It was not pretended that they could not pronounce either *k*, *kh*, or *g*. Then, why should they have said *kh* when they heard *k*, and *g* when they heard *kh*, and *k* when they heard *g*? The supposition of mutes was not adequate to account for such a systematic change; nor was so elaborate an hypothesis required. Persons possessing a language of their own, were quite as liable to mispronounce a new language as mutes. There could be no doubt that the interchange of sounds was a great puzzle, and no satisfactory explanation of it had yet been given. What he attempted to show in the passage quoted by Mr. Heath from the fifth lecture in the second series of his Lectures was, that, among civilised as well as among barbarous peoples, we constantly find the same language spoken with great phonetic variations. In the dialects of Greece, as well as of some of the Polynesian and Melanesian islands, there was found something analogous to what Grimm pointed out in Greek, Gothic, and High German; various tribes speaking the same language, yet one tribe pronouncing one letter, and another tribe another. That showed that, in considering this subject, we should not take our stand on any one language, but should learn to look on national or literary languages as the outcome of an infinite variety of dialects. Language was not revealed, ready made, uniform, perfect, classical. Language was in a constant state of growth, in a constant process of what is now called "natural selection." Whatever was possible in any one of the original dialects, might become fixed and generalised in national and literary languages. Writing, which was some-

thing purely accidental to language, nay, even oral tradition, checked the natural growth of spoken dialects; and, in order fully to understand many of the phonetic peculiarities of literary or so-called classical languages, we ought to learn what language is in its natural dialectic state. Language, as such, was never meant to be written; and, in the natural history of speech, literary languages had been rightly characterised as *monstra*, as *monstra* by their very regularity and false analogy. If we could show incipient traces of changes analogous to those of Grimm's law, this was probably the utmost we could hope to effect in illustration, if not in explanation, of that law. We need not see anything miraculous in these changes, for they are to be met with among many people at the present day. In Ireland, what one person called *pig*, another called *phig;* and that was the first stage of Grimm's law. Similar changes were found in Africa, and in the Polynesian islands; but they are sporadic there, while they are systematic in the Aryan languages.

The Rev. DUNBAR I. HEATH again shortly defended his position, that the changes in language could be better explained on the supposition that the original inhabitants of conquered countries were mutes, than they could be if it were assumed that they had a language of their own.

Mr. PRITCHARD said that among the Polynesian islanders there are instances where the inhabitants of groups not many hundred miles apart, cannot, though speaking the same language, pronounce certain sounds which distinguish their various dialects. The Tahitians cannot, by any effort or practice, pronounce the *s* of the Samoans, nor even their nasal *ng*. In the language of the Fijians there are sounds which the fair-skinned Polynesians cannot possibly utter—notably *th* (expressed in the Fijian alphabet by the sign *c*). It is simply impossible for a Samoan, Tongan, or Tahitian to say *s*, as in the word caucau=(thau-thau.

The PRESIDENT said he felt sure they would all join in thanking Professor Max Müller for having joined in the discussion.

Mr. BOLLAERT then read a paper on the "Maya Alphabet," which will appear in the *Memoirs* of the Society.

The Rev. DUNBAR I. HEATH remarked on the resemblance of the negative sign in the alphabet to that of the Egyptians, which was very graphic; the negative being expressed by two extended arms indicating dissent.

Professor MAX MÜLLER, on being asked by Mr. Bollaert to express his opinion, replied that the subject was quite new to him, but that he thought that Aubin's researches had clearly shown the transition of hieroglyphic into phonetic signs in Mexico. He thought, therefore, that behind these apparently phonetic signs of the Maya alphabet, there would probably be discovered hieroglyphic signs, and that the subject was well worthy of Mr. Bollaert's continued researches.

The PRESIDENT announced that the anniversary meeting of the Society would be held on the 2nd of January next; and to that day the meeting was adjourned.

GENERAL ANNIVERSARY MEETING.

JANUARY 3RD, 1866.

JAMES HUNT, ESQ., PH.D., F.S.A., PRESIDENT, IN THE CHAIR.

THE minutes of the previous meeting were read and confirmed.

The TREASURER submitted the following account, which had been passed by the auditors.

Income and Expenditure for 1865.

DR.				CR.			
1865. Dec. 30.	£	s.	d.	1865. Jan. 1.	£	s.	d.
To balances transferred:				By balance from 1864 ...	56	3	7
Gorilla.....	32	6	0	By balances transferred:			
Furniture	68	11	0	Subscriptions 1863.....	18	14	0
Salaries, rent, and assistance to Secretaries ...	205	2	9	,, 1864.....	79	5	6
Postages and advertisements	180	12	4	,, 1865.....	1000	15	11
Stationery	55	7	0	,, 1866.....	37	14	0
Office, reporting, & Brit. Association expenses..	151	10	1	Life compositions	245	14	0
Library and museum ...	47	7	0	Donations (library and museum)	92	15	0
Miscellaneous printing .	138	8	5	Sales of publications:			
Anthro. Rev. & Journal .	331	6	0	Waitz (Longman) ...	32	2	9
Memoirs, vol. i	19	19	4	Broca (ditto)	7	11	9
Pouchet	89	9	10	Vogt (ditto)	21	3	6
Blumenbach	147	15	3	Sundries (office)	19	14	1
Gastaldi	3	13	0				
Dinner to Capt. Burton	32	1	0				
Zetland expedition	25	0	0				
Gaboon ditto (grant to Mr. Walker)	25	0	0				
Balance carried forward...	56	4	11				
	£1,611	14	1		£1,611	14	1

1866. Jan. 1.
By balance brought forward £56 4 11

RICHARD S. CHARNOCK, *Treasurer.*

Audited and found correct.
GEORGE NORTH, } *Auditors.*
F. L. COTTON, }
London, Jan. 1, 1866.

REPORT OF COUNCIL.

The Council of the Anthropological Society of London have great pleasure in reporting to the Fellows the increased prosperity which has attended the Society during the third year of its existence.

The unprecedented number of new elections during 1864, has been far exceeded in the present year, while the resignations have been relatively fewer; and the Council can state with the highest gratification that the hopes they ventured to express in their last report have been amply realised. The Council trust that the details of the present report will give every reason to expect that the year 1866 will be signalised by still greater success.

Meetings.—During the year 1865, twelve ordinary meetings of the Society have been held, at which twenty-nine papers have been read, consisting of the following.

E. Sellon, Esq. On the Linga Puja, or Phallic Worship of India.

W. T. Pritchard, Esq., F.A.S.L., F.R.G.S. Notes on Certain Anthropological Matters connected with the South Sea Islanders.

E. Lund, Esq. On the Discovery of Syphilis in a Monkey.

G. D. Gibb, Esq., M.D., M.A., F.A.S.L. On the Essential Points of Difference between the Larynx of the Negro and that of the White Man.

T. B. Peacock, Esq., M.D., L.R.C.P. On a Skull exhumed in Bedfordshire.

T. Bendyshe, Esq., M.A., V.P.A.S.L. On the History of Anthropology.

K. R. H. Mackenzie, Esq., F.S.A., F.A.S.L. Notes on Fetish Worship in Egypt.

Dr. Shortt, F.A.S.L. On the Leaf-wearing Tribes of India.

Dr. Shortt, F.A.S.L. On some rude Tribes, the supposed Aborigines of Southern India.

M. Arminius Vambéry. On the Hadgis and Dervishes of Central Asia.

J. Hutchinson, Esq. On Human Remains from Cowley.

W. T. Pritchard, Esq., F.A.S.L., F.R.G.S. On the Physical and Psychological Characters of the Viti Islanders.

J. Anderson, Esq. Notes on Human Remains from Wick; with Note on the Human Skull, by C. Carter Blake, Esq., F.G.S., F.A.S.L.

T. Bendyshe, Esq., M.A., V.P.A.S.L. On the Anthropology of Linnæus.

W. Winwood Reade, Esq., F.A.S.L., F.R.G.S. On the Efforts of Missionaries amongst Savages.

H. Burnard Owen, Esq., F.R.S.L., F.A.S.L., F.R.G.S. On Missionary Successes and Negro Converts.

The Lord Bishop of Natal. On Missionary Efforts amongst Savages.

Dr. Berthold Seemann, F.L.S., V.P.A.S.L. On the Anthropology of Western Esquimaux Land, and on the Desirability of further Arctic Research.

C. Carter Blake, Esq., F.G.S., F.A.S.L. Report on the Anthropological Papers read at the Birmingham Meeting of the British Association.

Dr. James Hunt, F.S.A., Pres.A.S.L. On the Archaic Anthropology of the Zetland Isles.

Ralph Tate, Esq., F.G.S., F.A.S.L. Report on Diggings in the Islands of Unst and Yell. (Made on behalf of the Earl of Zetland, K.T., and the Anthropological Society of London.)

John Beddoe, Esq., M.D., M.A., F.A.S.L. On the Evidence of Phenomena in the West of England to the Permanence of Anthropological Types.

Dr. R. S. Charnock, F.S.A., F.R.G.S., Treas.A.S.L. On Cannibalism in Europe.

Rev. Dunbar I. Heath, M.A., F.R.S.L., F.A.S.L. On the Anthro-

poid Origin of the European Races, *versus* the Theory of Migration from the East.

H. G. Atkinson, Esq., F.G.S., F.A.S.L. On Two Australian Skulls.

H. G. Atkinson, Esq., F.G.S., F.A.S.L. On the Idiotic Family of Downham, Norfolk.

W. Bollaert, Esq., Hon. Sec. A.S.L. On the Maya Alphabet.

Finances.—The past year has been one of very considerable expense to the Society. Many items of payments will not occur again, and altogether, the expenditure, according to the estimate of expenses proposed by the zealous Treasurer of the Society, will not be so great as that of last year. The Council are glad, however, to state that economy will be exercised in what may be denominated the extraordinary expenses; and that the printing of translations, memoirs, etc., and the supply of the Journal will go on as before.

It has been thought advisable that the accounts of the Society should be carefully examined since its commencement; and we are happy to state that an efficient system of practical bookkeeping has been introduced. The Council desire to acknowledge the liberal and voluntary assistance they have received on this occasion from Mr. J. W. Conrad Cox, a member of their body, as well as to return their best thanks to their present active Treasurer, Dr. Charnock, for the able manner in which the interests of economy have been advocated by him.

The Council regret very much to see that some defaulters remain on their books; and although the number is comparatively small, they trust that the laxity which has hitherto prevailed, as regards the carrying out of the 15th and 16th rules of the Society, will not be permitted during the year 1866. They feel that in a matter of this description, the good faith of those members who have received during the past year works of greater pecuniary value than the amount of their subscriptions, ought to be the best security for the prosperous state of the Society's finances.

Salaried Officer.—The great increase in number of members, and other features of our success during the past year, are in no small degree due to the able services of our Curator, Librarian, and Assistant-Secretary, Mr. Carter Blake. The present position of the Society has not been gained without much labour and energy on the part of the various officers.

So much success having been attained, your Council have considered how this prosperity may be secured, and extended in future; and they have unanimously agreed that the time has come when it is both desirable and necessary to appoint a second paid officer, not only to help the advancement of the objects of the Society, but also to assist in the work which has already grown too heavy for one person to manage. The duties of the Assistant-Secretary are many and exceedingly varied, and so capable of useful extension as to afford ample work for two secretaries. To cite one instance, for example, the correspondence with the various local Secretaries alone might well most usefully occupy the whole time of one secretary. Two officers have been

appointed: an Assistant-Secretary, and a Curator and Librarian; their several duties being defined below.

The duties of the Assistant-Secretary shall consist,

1. In attendance at the Society's rooms from 10 A.M. to 5 P.M.

2. In the general management of the duties of secretary under the direction of the officers and Council.

3. In attendance at the general and ordinary meetings of the Society, and in the preparation of the work connected with the same.

4. It will be the duty of the Assistant-Secretary to keep complete records of all the business connected with the Society, to keep the accounts of the Society, and from time to time make suggestions for the better management of the Society's affairs.

5. It will also be the duty of the Assistant-Secretary to invite gentlemen to attend the meetings, who may be specially qualified to speak on the various subjects brought before the Society at their ordinary meetings.

6. He shall keep a list of gentlemen whom it may be considered desirable to invite to join the Society, and a list of those who are likely to contribute papers to the Society. He shall invite gentlemen returning from foreign travels to communicate their observations to the Society.

7. In the absence of the Curator and Librarian, the Assistant-Secretary shall perform his duties.

8. In addition to the foregoing, the Assistant-Secretary will be expected to perform such other duties as he may be from time to time called upon to do by the officers and Council.

9. The Assistant-Secretary shall be entitled to six weeks vacation annually, taken at such time or times as may be authorised by the officers of the Society.

The duties of the Curator and Librarian shall consist,

1. In the general management of the Society's Museum and Library.

2. In drawing up reports from time to time for their development or better management.

3. As Curator, it shall be his duty to write to all foreign travellers to ask for specimens suitable for the Society's Museum, and to conduct a correspondence with foreign societies and anthropologists in all parts of the world with the same object.

4. As Librarian, it shall also be his duty to keep a complete record of every book published on anthropology.

5. It shall be the duty of the Librarian to correspond with all other publishing societies on anthropology, with a view to obtain complete sets of their transactions.

6. The Librarian shall also keep a list of books which it may be desirable to obtain for the Society's Library.

7. In the absence of the Assistant-Secretary, the Curator and Librarian shall perform his duties.

8. In addition to the foregoing, the Curator and Librarian will be expected to perform such other duties as he may be called upon to do by the officers and Council.

9. The Curator and Librarian shall attend at the rooms of the

Society from 10 till 4 daily, and shall be entitled to six weeks vacation annually, taken at such a time or times as may be authorised by the officers of the Society.

The Council have much pleasure in reporting to the Fellows of the Society that they have unanimously elected Mr. J. Frederick Collingwood to fill the office of Assistant-Secretary. The connection of that gentleman with the Society as Honorary Secretary from nearly its commencement, and the admirable manner in which he then discharged his duties, is a sufficient guarantee that Mr. Collingwood will conduct the duties of his new and important office in an efficient manner. The Council feel assured that the Fellows of the Society will greatly rejoice to hear that Mr. Collingwood has consented to accept this office, and that henceforth his time and energies will be entirely devoted to furthering the objects of the Society.

The Council feel equal pleasure in congratulating the Society on the retention of the office of Curator and Librarian by Mr. Carter Blake.

The Council believe that the development of the Society has rendered the above-mentioned changes necessary; and should the Society continue to increase, they believe that it will be desirable further to add to the staff of salaried officers. A proposal has been made by Captain Burton, that there should be a paid travelling secretary; and another proposal by Mr. Bendyshe, that there should be a paid Director of the whole of the Society's affairs, who would be able considerably to lighten the work now devolving on the President. To discharge efficiently the duties which now belong to the office of President requires an amount of time and labour which the Council feel they have no right to expect from gentlemen called on to fill this post. Many of the Local Secretaries of the Society, and others carrying on explorations on behalf of the Society, have requested some deputy of the Council to attend and inspect their work. The Council are fully sensible of the advantages which would accrue to the Society from such periodical visits to our Local Secretaries, and to others making investigations on behalf of the Society. The services of a gentleman might be thus most advantageously secured, to whom the Council might entrust a general superintendence of the Society's affairs, under the direction of the Council, but at present they regret that the funds of the Society forbid such an appointment.

The Council consider that it will only be expedient to entertain this proposal when the Society has increased very considerably in numbers, and when a greater annual income is secured. The Council have thought it advisable to allude to these proposals on this occasion in order to make known their opinion that an efficient staff of salaried officers can alone permanently maintain a Society acknowledging so many obligations and duties. Your Council also feel that in making these proposals known, they will at the same time be announcing the necessity for continued activity on behalf of the Fellows of the Society in obtaining new members. The Council recommend that these proposals be taken into consideration on the Society's numbering one thousand paying Fellows.

Officers.—The Council have to announce considerable changes in the

officers of the Society since last anniversary. On the 16th May last, Mr. George E. Roberts handed in his resignation as Honorary Secretary, with regrets that he could not longer conscientiously hold an office to which he was unable to give the time it fairly demanded. The Council, acknowledging the justice of his reason, accepted his resignation. They had fortunately, however, no difficulty in finding a successor to Mr. Roberts in the person of Mr. H. J. C. Beavan, a gentleman fully qualified to occupy the secretaryship, and who was willing to undertake it. Mr. Beavan had for some time previously been an able and active member of Council.

The death of Mr. G. E. Roberts on the 21st ultimo, after a few days illness, will, your Council doubt not, cause general regret. The zeal with which the deceased discharged the duties of Honorary Secretary, as well as his amiable and genial disposition, render the unfortunate event which has so recently occurred, a source of great sorrow to the members of the Council.

Members.—The Council have elected 210 members during the past year. On the other hand, nine resignations have been received; and they have to regret the loss by death of six Fellows of the Society. The total number of Fellows on the Society's books amounts at the present time to 660.

Honorary Fellows.—Twenty-nine Honorary Fellows are now on the Society's books, 4 having been elected during the past year. The Honorary Members elected were: Professor Velasco, Madrid; Professor Max Müller, Oxford; Professor Nilsson, Stockholm; E. G. Squier, Esq., New York.

On the other hand, the Society has to regret the loss of Professor Gratiolet, experienced early in the present year.

Corresponding Members.—There are now thirty-nine Corresponding Members on the Society's books. The Council have to regret the loss of Professor Giglioli (of Pavia) by death early in the year.

Local Secretaries.—Thirty-nine Local Secretaries in Great Britain and Ireland are now enrolled, twelve of whom have been elected during the past year.

Fifty-two Local Secretaries abroad have now been enrolled, sixteen of whom have been elected during the past year.

One Local Secretary in England has resigned.

One Local Secretary abroad (E. Harbour, Esq., B.A.) was unfortunately drowned during the past year, shortly after his appointment as Local Secretary of the Society at Amoy.

Apartments.—The Society's Rooms during the past year have been constantly frequented by Fellows for reading and inspection of specimens in the Museum. Your Council hope that during the next year, it may be possible to complete the furnishing of the Society's Rooms, by the addition of book-shelves and glass-cases to receive the numerous valuable books and specimens now in the Society's possession.

Donations.—Many valuable donations have been received during the past year. The most important one is the foundation, by a member of the Society, of a special Library and Museum Fund, destined to meet the numerous preliminary and incidental expenses which are

attendant on the foundation of the extensive Anthropological Museum and Library now contemplated. They desire especially to return their best thanks to the following gentlemen for the liberal donations below cited.

W. Chamberlin, Esq., £1 : 1 ; W. Pinkerton, Esq., F.S.A., £2 : 2 ; J. Hillier Blount, Esq., M.D., £1 : 14 ; H. G. Atkinson, Esq., F.G.S., £5 ; A. Trevelyan, Esq., J.P., £5 ; P. O. Whitehead, Esq., £1 : 1 ; W. Hanks Levy, Esq., £1 ; J. Reddie, Esq., 10*s.* ; W. Robinson, Esq., £5 ; M. Paris, Esq., 10*s.* ; General Le Grand Jacob, £1 : 1 ; J. H. Challis, Esq., £5 : 5.

Extensive purchases were made on the Society's behalf at the sale of the library of the late Professor Vrolik of Amsterdam, and some of the most valuable anthropological works were there obtained at a moderate price for the Society's Library.

Library.—Many valuable works, bearing directly or indirectly on various branches of Anthropology, have been added to the Library since the last report. The Council, while acknowledging with the greatest pleasure the liberal presents, of which the donors are enumerated below, beg to remind the Fellows generally, and especially those living in the metropolis, who enjoy the fullest privileges of the Society, of the great benefit that must accrue to the Society from a larger annual addition to the Library than we have hitherto been able to show. Works of the current time, more particularly those of travel, colonial statistics of health and population, parliamentary blue-books containing evidence of whatever character on the condition of immigrants and natives, etc., would go far, much farther than a superficial and hasty thought might suggest, towards furnishing data of the highest usefulness and value. It may, therefore, be in the power of many Fellows at a small sacrifice to contribute largely and worthily towards the objects for which we are all labouring. The Librarian has undertaken the collection of an extensive series of tracts and pamphlets, the majority of which are of small intrinsic value, but which, when classified and indexed in volumes, will form a collection hitherto unexampled for size and usefulness. The Council feel that in making this appeal, they have only anticipated the further liberality of the Society.

Donations have been received for the Library from the following gentlemen :—H. G. Atkinson, Esq. ; T. Bendyshe, Esq. ; M. Paul Broca ; H. Brookes, Esq. ; M. Boucher de Perthes, Esq. ; H. J. C. Beavan, Esq. ; W. Bollaert, Esq. ; T. S. Burt, Esq. ; L. Burke, Esq. ; C. Carter Blake, Esq. ; J. W. Conrad Cox, Esq. ; Rev. Dr. M. P. Clifford ; J. Fred. Collingwood, Esq. ; S. Edwin Collingwood, Esq. ; Dr. Barnard Davis ; M. D'Archiac ; Carl Engel, Esq. ; Dr. F. R. Fairbank ; Dr. J. Hunt ; Prof. Hyrtl ; G. A. Hutchinson, Esq. ; Dr. Halbertsma ; J. W. Jackson, Esq. ; D. G. F. Macdonald, Esq. ; J. Miller, Esq. ; G. W. Marshall, Esq. ; J. Morris, Esq. ; K. R. H. Mackenzie, Esq. ; W. A. Nunes, Esq. ; the Lord Bishop of Natal ; D. W. Nash, Esq. ; H. Burnard Owen, Esq. ; Prof. Owen ; T. E. Partridge, Esq. ; M. Pruner-Bey ; Dr. Peacock ; J. Reddie, Esq. ; George E. Roberts, Esq. ; W. W. Reade, Esq. ; R. T. Stothard, Esq. ; Dr. Seemann ; Dr. Constantine Simonides ; E. Sellon, Esq. ; Dr. W. Story ; Capt. A. C.

Tupper; N. Trübner, Esq.; Dr. Ryan Tenison; M. Carl Vogt; R. B. N. Walker, Esq.; M. H. Wagner.

Museum.—The Council regret that, during the past year, they have not been able to sanction that expense for the exhibition of museum specimens which the importance and value of the articles required. They hope, during the ensuing year, to be able to show some part at least of the large and valuable collection, now temporarily deposited in a small storeroom. It is suggested that a large glass-case should, when the funds of the Society permit, be erected in the large room, which shall be devoted to our extensive collection of skulls and stone implements. During the last year, some valuable specimens have been obtained from the Society's correspondents in West Africa; and it is hoped that the Society will be able, at no distant date, to exhibit a complete set of the skulls of the various negro and negroïd tribes. Attention has been given, in all cases, to preserve, with every specimen presented to the Society, the fullest record of its history, and accurate notes of the locality from whence it was obtained.

Donations have been received for the Museum from the following gentlemen:—H. G. Atkinson, Esq.; T. Baines, Esq.; J. B. Baxter, Esq.; Rear-Admiral Drinkwater Bethune; E. Canton, Esq.; D. Gay, Esq.; M. Gratiolet; J. Meyer Harris, Esq.; J. McCoskey, Esq.; G. W. Marshall, Esq., LL.M.; Capt. Montgomery Moore; Major S. R. Owen; Dr. Sampson Roch; Capt. A. C. Tupper; R. B. N. Walker, Esq.; N. Whitley, Esq.

The Council have during the past year taken into careful consideration, on more than one occasion, the desirability of an entrance fee for all future Members, but have decided that such a course is not expedient at present. They have directed that a distinguishing mark be prefixed to the names of the original or Foundation Fellows, on the Society's lists; but that the question of the entrance fee be still held in abeyance. This decision on the part of your Council has been arrived at in consequence of the opposition which the Society has met with at the hands of the British Association, and the necessity that exists for increased numerical strength, to secure the recognition of anthropological science by that body. At the same time, the Council wish it to be distinctly understood that they are not, and never have been, in opposition either to the British Association or to any other body: their sole aim has been to discharge their duties to the Society, and to forward the progress of anthropology as much as possible. The Council consider that, in the actual condition of the Society, any measure likely to diminish the number of applications for membership would be highly inexpedient.

Translations.—The following translations have been published, under the Society's auspices, during the year 1865:—

Blumenbach, J. F., the Life and Anthropological Treatises of; with the Inaugural Dissertation of Dr. John Hunter. By T. Bendyshe, Esq., M.A., V.P.A.S.L., Fellow of King's College, Cambridge.

Gastaldi, Cavaliere Bartolomeo. Lake Habitations and Prehistoric Remains in Northern and Central Italy. Translated from the Italian, by Charles Harcourt Chambers, Esq., M.A., F.A.S.L.

Mr. Bendyshe's translation of Blumenbach's work appeared early in the year, and has attracted so large a share of attention outside the Society, as to afford the most flattering testimony of the judgment of the selection, first of the work itself for translation, and secondly of the gentleman into whose hands the task of editing was entrusted. A large correspondence with the Fellows of the Society, has convinced the Council in their behalf, it could not in this case have discharged its duty better, nor with greater general satisfaction.

Mr. Chambers's translation of Cav. B. Gastaldi's work has, it is believed, met with general approval.

Memoirs—A large volume of original memoirs, read before the Society, has been issued to the Members during the present year. During the next year, the Council intend to publish a second volume of the *Memoirs*, a large portion of which is already in type: many of the papers will be copiously illustrated with woodcuts. The first volume of the Society's *Memoirs* will soon, it is believed, be out of print; and the Council suggest to those Fellows of 1866, who may wish to complete their sets, the expediency of the purchase of the first volume without delay. In future, the long and technical papers, which have frequently been inserted in the *Journal* of the Society, will be printed in their proper place in the *Memoirs*. This step will to a great extent increase the great scientific and practical value of the *Memoirs*, whilst it will relieve the *Journal* of much matter which is more suitable to the volume of *Memoirs*.

Anthropological Review and Journal of the Society.—The *Journal* of the Society is still, as it has always been, issued quarterly, with each number of the *Anthropological Review;* and the experience of another year has confirmed the usefulness of the co-publication of the two. The only noteworthy change is in the time of publication. The Council, and the Fellows of the Society generally, having thought that the issue of their *Journal* would benefit by its publication at the quarters commencing January, April, July, October, instead of February, May, August, November, application was made to the publishers of the *Anthropological Review*, who cordially agreed to the proposed alteration; accordingly, the change was made in July, by the publication of No. X a month prematurely, and the Council believe that the Society acknowledges the benefit of the change already.

The editing of the *Journal* has continued to be performed by the Assistant-Secretary, under the direction of the Publication Committee. The diffuse character and great length of many of the discussions during the present year, have necessitated, in more than one case, the publication of a *verbatim* report of the proceedings, contrary to the usual practice of the Society. With a view, however, to prevent the premeditated delivery of written speeches, which are essentially of the nature of formal communications to the Society, your Council have resolved that, for the future, no written speech be delivered before the Society without having first been laid before the Council, and sanctioned by them. It is hoped that this expedient may prove of great benefit to the hearers of the discussion, and that it may also tend to the elimination of much superfluous matter from the Society's *Journal*.

Explorations.—During the past year, a portion of the Society's income has been expended in the furtherance of scientific exploration and research. A sum of money was voted to assist Mr. R. B. N. Walker, a Fellow of the Society, in his exploration of Equatorial Africa. A grant was also made to partly defray the expenses of the investigations, undertaken by the Society, into certain archaic anthropological remains in the British Isles.

The Council have been reluctantly compelled to refuse several applications, which have been made recently, for pecuniary assistance in carrying out various similar scientific undertakings.

Societies.—The list of societies exchanging publications remains the same as last year, with the exception of the Royal Asiatic Society; the Royal Society of Antiquaries of Scotland; the Société des Amis de la Nature of Moscow; the Sociedad Antropológica Española of Madrid; the Société d'Archéologie de Namur; the Ethnological Society; with whom an exchange of publications has been arranged.

In concluding the report for 1865, the Council wish most seriously to impress upon all the Fellows the necessity there is for increased zeal and co-operation during the coming year; for it is to the Fellows as a body and individually that the Society must look for its progress and success. The officers and Council endeavour to propose and carry out every measure which may appear likely to advance the cause of anthropology, but they can do little by themselves. They have always hitherto received hearty co-operation from many of the Fellows; and they doubt not that they will receive much more from the anticipated large increase of working members, during 1866.

Signed, on behalf of the Council,

JAMES HUNT, *Chairman.*

Major OWEN said, I shall not take up our time with many comments on the very satisfactory Report we have just heard read. There is other work to get through; and we are naturally anxious to hear what our esteemed President has to say to us on this occasion. But I cannot refrain from congratulating you on the good fortune that has attended us in securing such a man as Mr. J. F. Collingwood to be our future Secretary. He has been long well known and appreciated by us. Gentlemen, I propose that this Report be adopted.

The motion was seconded by Mr. A. HENRIQUES, and was unanimously agreed to.

H. W. Jackson, Esq., and A. Henriques, Esq., were then appointed Scrutineers, and the ballot for the election of officers of the Society for the ensuing year was proceeded with.

Mr. BOLLAERT proposed to amend Rule 9 of the Society, by the omission of the word "same", and the introduction of the word "next."

Mr. BEAVAN seconded the resolution, which was carried unanimously.

Mr. E. BRABROOK moved "that the thanks of the Society be given to the retiring members of the Council, Mr. C. H. Chambers and Mr. S. E. B. Pusey, for their services during the past year." He said he moved that resolution with the more pleasure, from having known the retiring members in their individual capacity. Mr. Pusey had

been a liberal benefactor to the library of the Society; and he and Mr. Chambers had often taken part in the proceedings at their ordinary meetings. Mr. Brabrook alluded with great regret to the death of Mr. Roberts, who had been a member of the Council, and whose loss would be much felt by the Society.

Mr. A. Wilson seconded the motion, which was carried unanimously.

Mr. Mackenzie proposed the next resolution, which he said he did with cordial satisfaction. It was, "that the thanks of the Society be given to the President, Vice-Presidents, officers, and Council, for their services during the past year." Having been in communication with all those gentlemen, he could bear testimony to the able manner in which they had discharged their duties. He had watched the progress made by the Society during the last year with much interest; he felt full confidence in its success; and, knowing the difficulties the officers of the Society had had to contend with, he could appreciate what they had done. The struggle at Birmingham had been an exciting one; and he felt assured that they had moved a step forward in consequence, and in the right direction. Had it not been for the advice and energy of the President on that occasion, the Society would not have been in the position it now occupied.

Dr. Caplin in seconding the motion, observed that the Society could not succeed without having proper men at its head; and he felt much pleasure in seconding the resolution, in which he hoped they would all cordially join.

The motion was carried by acclamation.

The President, Mr. Bollaert, Mr. Beavan, and Dr. Charnock, briefly returned thanks.

The Rev. Dunbar I. Heath, on rising to propose "that the thanks of the Society be given to the Auditors", observed that these were a class of officers who, the more they had to do, the worse it was for the Society; and, as he had been nominated the Treasurer for the next year, he hoped that, as on the present occasion, the auditors would have an easy time of it.

The resolution was seconded by Mr. G. F. Rolph, and carried unanimously.

Address delivered at the Third Anniversary Meeting of the Anthropological Society of London. By James Hunt, President, Ph.D., F.S.A., F.R.S.L., F.A.S.L.

Gentlemen,—For the first time since I have had the honour of being called upon to deliver the annual address to this Society, it is my duty to record the loss by death of several of our Associates, of one Honorary Fellow, and of one Foreign Local Secretary. I propose to follow the example set by the Presidents of some of the older scientific societies of the metropolis, and to give a short obituary notice of the deceased Fellows:—

George Edward Roberts. It is with much regret that I have to announce the death of one who has been intimately associated with this Society since its formation—our late respected and amiable Honorary Secretary, Mr. George Edward Roberts. The death of our

colleague comes home to many of us with peculiar regret. We have not simply lost a friend, but his death has also destroyed some pleasant associations connected with the early history of this Society. Mr. Roberts was one of those who attended the meeting held in this room on the 6th of January, 1863, and subsequently took an active part in drawing up our rules and regulations. Before this, Mr. Roberts had been invited to take the Honorary Foreign Secretaryship, and, although he declined that office, he was always ready to serve the Society even before finally joining as a member. Mr. Roberts had a large private correspondence amongst scientific men throughout the world, and would have been eminently fitted for the office of Foreign Secretary. On Mr. Blake resigning his post as senior Honorary Secretary in June, 1864, Mr. Roberts consented to be elected as his successor, and he discharged the duties of that office until June last. During that time I had ample opportunity of judging of his thorough interest in the welfare of the Society, and of the admirable manner in which he made himself master of any subject before giving his opinion. Many points of considerable importance to the welfare of the Society were discussed during the time that Mr. Roberts held office, and he uniformly showed that he had confidence both in the future of the Society and in his colleagues. Mr. Roberts was one of those who has always contended that this Society ought to be, and ere many years would be, the largest and most important scientific society in this metropolis. Unfortunately he has not lived to see whether his opinion would be verified, having gone from us at the early age of thirty-four. The Society has lost in him a sincere and zealous member. His work must not be estimated by the number of pages contributed by him to our publications, his chief labours on our behalf having consisted of letter writing. He made our society known by this means to all his correspondents, and urged them to assist in our work. He never lost an opportunity of inducing his acquaintances to visit our museum or to attend one of our meetings. When recently travelling in Scotland, I found that Mr. Roberts was widely known there by name if not personally. Through his industry and zeal we are indebted for our best knowledge of the discoveries in the Zetland Islands, and it was at the earnest solicitation of Mr. Roberts that I undertook my recent journey to explore them.

Mr. Roberts was born at Birmingham in 1831, and his family removed soon afterwards to Kidderminster. Here he exhibited an early taste for geology and botany. He wrote some little books of local interest, viz., *The Valley of Habberley and the Hill of Trimpley*, *The Abberlay and Woodbury Hills*, etc. He afterwards endeavoured to combine science with imagination in some children's books, amongst which are *Charley's Trip to the Black Mountains*, *Snow-bound in Cleeberrie Grange*, *A Book for Fairies*, etc. His reputation, however, as a geologist rests chiefly on his work entitled *The Rocks of Worcestershire*, a paper on *The Geological Strata of the North of Scotland*, and an article published in 1864, entitled *Remarks upon the present Condition of Geological Science*. He was a frequent contributor to the *Geological Magazine*, the *Intellectual Observer*, the *Reader*, and other

Yrs. ever
George E. Roberts

periodicals. During the existence of the *Parthenon*, he was its scientific editor. Mr. Roberts was a Fellow of the Geological Society and an Honorary Member of the Worcestershire, Severn Valley, Warwickshire, and Naturalists' Field Club, and also of the Worcestershire Archæological Society. His contributions to our own Society consist of the following papers:—"On Mammalian Bones from Audley End, Essex;" "On a Jaw from Buildwas Abbey, Salop;" "On Prehistoric Hut-circles." With Prof. Busk he contributed a paper "On the Opening of a Kist of the Stone Age;" with the Rev. J. M. Joass he was the joint author of a paper on "Prehistoric Dwellings in Rosshire;" with Mr. Bolton he arranged the notes relating to the Kirkhead Cave at Ulverstone; whilst with Mr. Carter Blake he was the contributor of papers on Human Remains from Peterborough, and on the Discovery of large Kistvaens in the Mückle Heog in the Island of Unst, Shetland. Mr. Roberts, I am informed, was well acquainted with Palæozoic geology, and especially with Cambrian rocks.

In private life our friend was well known for his extreme sociability. A friend of his, Mr. John O. Middleton, writes to me: "I never met a man of a more genial and uniform temperament. I grieve for the loss of so sincere and genuine a friend. His removal seems to leave a void in my personal history; and I think I do not extol his virtues and amiability of character too highly when I say that he has gone to his grave accompanied by the sorrow of all who knew him." I cordially agree with this testimony to our deceased member. There was much in the character and example of Mr. Roberts deserving of imitation; he was never averse to trouble, and when holding the office of Honorary Secretary thought nothing of travelling long distances on the service of the Society. Others must now do the work which Mr. Roberts undertook for us, or our Society will suffer. His loss to us is greater than is generally supposed; only those who knew how much and how quietly he was working in our behalf can duly estimate it.

This is only a short and poor tribute to the worth of our colleague, but the event of his death is so recent that we have not yet had time fully to realise either the vacancy caused in our Society, or the loss we have sustained in his genial presence at our meetings.

Thomas Williams, M.D., F.R.S., F.L.S., etc. Dr. Williams was a man of considerable reputation as a physician and as a student of science. His father was a Welsh clergyman. Dr. Williams was a man of great industry and considerable imagination. One of his early works was on the "Co-relation of the Three Kingdoms in Nature." In 1857, he contributed a paper to *Todd's Cyclopædia*, on the "Structure of the Lungs of Man and the Vertebrated Animals." Dr. Williams was early threatened with renal disease, and compelled to leave London. He settled at Swansea, where he continued his practice, and also his researches as a naturalist. Besides these occupations, Dr. Williams found time for the study of the language and antiquities of Wales. He was a great reader; and although living out of the metropolis, kept himself informed of the latest discoveries in every branch of science. Dr. Williams was elected a Fellow of our Society on May 3rd, 1864, and died on the 23rd of May last, aged forty-six.

John Stevenson. Mr. Stevenson, I am informed, was a young man of considerable ability. At the end of 1864, he went to Australia for the benefit of his health, and died at the early age of twenty-nine on his voyage home.

John Cassell. It may be a matter of surprise that this Society should have numbered amongst its members such a man as the late John Cassell. This circumstance, however, is noticeable as giving evidence of the wide range of our science. Mr. Cassell had no pretension to be a scientific man; but he possessed very great intelligence and extensive general information. Thousands who have never even heard the name of our science, are well acquainted with that of John Cassell. The fact of men of this stamp joining our Society is a hopeful sign, and gives evidence of the largeness of our sympathies thus to embrace men of all shades of opinion. Had Mr. Cassell been spared, he might, perhaps, have played no unimportant part in making known the results of our science amongst the masses. He had warmly at heart the social, moral, and intellectual elevation of the people; and Lord Brougham has borne honourable testimony to his services in this direction. Mr. Cassell had raised himself from a very humble position. He was only forty-eight years of age at the time of his death. His parents were natives of Kent.

Henry Stanhope Freeman. Mr. Freeman was at the time of his death, at the early age of thirty-four, governor of Lagos. He had not contributed to our transactions, but attended and spoke at some of our meetings, and promised to do all in his power to aid the Society. On one occasion he publicly stated his regret that he had not known earlier the works of the Society, and the wants of the science of anthropology, before returning to England on sick leave. He went to Africa full of hope for the West coast; and I trust he has left behind him some record as to how far his preconceived ideas respecting negro civilisation were verified by his personal observation.

Dr Pierre Gratiolet. I shall purposely refrain from alluding to the loss anthropological science has sustained in the death, at the age of fifty, of our lamented Honorary Fellow, the illustrious Gratiolet. M. Broca has undertaken to write his life, and this will ere long be translated and published with M. Gratiolet's masterpiece, *Mémoire sur les Plis Cérébraux de l'Homme et des Primates.* Under these circumstances, I think I shall do well in leaving the praise due to this illustrious man to one who is so much more qualified for this official task than I can pretend to be.

Edward Harbour, B.A. We have also to record the death of our Local Secretary for Amoy. Mr. Harbour was only elected on the 2nd May, 1865. He was unfortunately drowned owing to the upsetting of a small boat. We have to regret in Mr. Harbour a young man of very great promise, and from whom we expected to have obtained valuable information respecting the Chinese. Mr. Harbour was known as a frequent contributor to periodical literature.

I propose now to make a few remarks on a subject which I introduced to your notice at our last anniversary, viz., the definition of our science. I also spoke at that time on the history of the word Anthro-

pology. Since that occasion I have read Mr. Bendyshe's admirable history of the word, and sufficient has been said by him on that point to render it unnecessary for me to add thereto.

The history of the first use of terms is a trifling matter compared with what ought to be their definition at the present time. This subject is one of the greatest importance, and we cannot pay too much attention to it, inasmuch as the future success of our science will depend in a considerable degree on a clear definition of our terminology. All sciences have certain well-defined subdivisions. Thus, in geology, there is palæontology, geography, and geognosy, which are analogous to the divisions of our science proposed last year, viz., historical anthropology, descriptive anthropology, and comparative anthropology. The question arises, are these three definitions sufficient? I now beg to offer a few suggestions on this point. To show its importance I will briefly narrate what took place at a meeting of our parent society in Paris only in May last.

Towards the end of the sitting on May 18th, a somewhat lengthy conversation took place between MM. Rochet and Broca on the signification, the scope, and the limits of anthropology. The questions raised by M. Rochet chiefly related to the insufficiency of the notion given by article 1 of the statutes relative to the objects of the society, which is indicated as being *the scientific study of the races of mankind.* If these words, said M. Rochet, are taken in this restricted sense, it is clear that the Society has constantly departed from its objects, since it has occupied itself not merely with human races, but with man and the industry of man, and all manifestations of his activity. That there is accumulated in the *Bulletins* and *Mémoires* a mass of documents for which it is difficult to find a centre. M. Rochet, being desirous to learn whether certain works he is now engaged in belong to anthropology and may find their place in the publications of the society, said he would feel obliged if such members of the society as might be able to enlighten him on this point, would give him a more precise definition of anthropology than is contained in the statutes.

M. Broca after stating that on several occasions, and specially in his history on the labours of the society published in the second volume of the *Mémoires*, the questions of M. Rochet had been replied to, said that he could not better explain the phrase of the statutes than by giving the history of the foundation of the society. He showed the necessity in which the founders found themselves in the presence of the distrust of the government to keep to this laconic and insufficient phrase. But he thought that he expressed the opinion of most of his colleagues by saying that Anthropology is the study of the human group, not merely by itself but also in its relation to the rest of nature; the differential characters of anthropology on the one hand, and those of history, biology, and archæology on the other, indicating, at the same time, how far these schemes are connected with anthropology. M. Broca reminded M. Rochet that at all times artistic productions have served to characterise the races of the past as documents characterise the present races, inasmuch as they reveal particular aptitudes.

These remarks show how advisable it has become for all anthropologists to possess some clear conception and definition of the objects and limits of their science. When an anthropological society was to have been founded in Paris in 1846, objection was taken by the government of that day to the formation of such a society. Even at the present day we cannot say how far our fellow students are able to declare the full meaning and extent of anthropological science.

It will, however, be seen from M. Broca's reply, that there is really little difference of opinion as to the definition of the science of anthropology by ourselves and by our Parisian colleagues. Being agreed on this point, it would be very advisable if we could also agree as to the divisions of our science. It is with the hope of eliciting some discussion on this point, and also because I think the classification proposed last year to some extent unsatisfactory, that I now propose the addition of another division of our science, under the title of ARCHAIC ANTHROPOLOGY.

Twelve months since, I suggested that all subjects which throw light on man's history should be classified under the head of "Historical Anthropology"; a term used by Rudolph Wagner, but which was originally proposed by Christian Daniel Beck, a Professor of Ancient Literature in the University of Leipsic as early as 1813, in his *Universal History*. By this writer, historical anthropology is made to include mythology, language, genealogy, etc. I think it would be advisable for us still to continue to confine the meaning of historical anthropology to man's psychological history, and to introduce another term for his physical history. The term "human palæontology" was formerly and is now used to denote this branch of our science; but although sufficiently explicit, it is not well suited to supplement the titles of the other three. I propose, therefore, to take the root of the word archæology, and to include under the term "archaic anthropology" all subjects which illustrate man's past physical history. Historical anthropology will then be limited to man's psychological history.

Skulls, worked stones, tumuli, architecture, and all tangible things will be included in the former; mythology, history, creeds, superstitions, in the latter. Every writer on the antiquity of man has occasion to speak in some way of what has been called the archæological evidence. Thus an author, whose loss we all deplore, the late eminent Dr. Hugh Falconer, observes, "Geology has never disdained to draw upon any department of human knowledge what could throw light on the subjects which it investigates. Cuvier, in the *Discours Prêliminaire*, exhausted the records and traditions of every ancient people in search of arguments to support the opinion that the advent of man upon the earth dates from a comparatively late epoch. At the present time the whole aspect of the subject is transformed. The science is now intimately connected with archæological ethnology in searching for evidence of the hands of man in the oldest quaternary fluviatile gravels of Europe."*

The expression, "Archæological Ethnology", is, to say the least, a

* "Journal of the Geological Society", No. lxxxiv, p. 383.

most infelicitous one. In the first place, it is not a question in any way connected with ethnology according to any definition which I have ever heard given to that word; and in the second, there is certainly no necessity for two "logos" terminations. To use the author's own words, the search is for "evidence of the works of man" and is not in any way connected with the question of race. I therefore beg to suggest that for the future it would be advisable (until a more suitable classification or expression is proposed) to use the term "ARCHAIC ANTHROPOLOGY" instead of the most indefinite word "archæology." We shall then have:—

1. Archaic anthropology, or the past history of man, from his physical remains and works.

2. Historical anthropology, or the past history of mankind, as deduced from mythology, creeds, superstitions, language, traditions, etc.

3. Descriptive anthropology, or the description of man and mankind.

4. Comparative anthropology, or the comparison of different men and different races of men with one another in the first place, and a comparison of man with the lower animals in the second.

The questions then arise; do these subdivisions all go to make up one science which has a centre within itself? Can any of these divisions be taken away and a veritable science yet remain? Do these divisions include the whole science of man?

The first two treat of man's past history, and all must admit we ought to know all that can be known on this point in order to form a science of the present. But it may fairly be asked is there any necessity to divide archaic from historical anthropology? It appears to me advisable that we should have a physical historical anthropology, and a psychological historical anthropology. If we call the former archaic anthropology, and the latter historical anthropology, we shall be simply following out the separation which for a long time has subsisted between archæology and history. The word archæology has been used in such a variety of senses, and also in such an extended sense as to be made to include everything old, and some things new. Church architecture and corporation seals now afford much discussion to the archæologist. The other day I heard it announced that the study of the postage stamps of different nations was an interesting branch of archæology!

In using the term archaic anthropology we must guard against giving it such a vague meaning as archæology has now acquired. We must also endeavour to draw a pretty clear division between what is to be respectively called archaic and historical anthropology. All forms of palæography and ancient art should belong to historical anthropology. A cromlech would belong to archaic anthropology, but if inscriptions be found on it, that part will belong to historical anthropology: and thus the one will be the handmaid of the other. Archaic anthropology will help to give us the history of ancient humanity; historical anthropology brings us into closer communion with them, and both will combine to enable us to build up a science of man in the past and the present.

I have heard it remarked during the past year, that the terms descriptive anthropology and comparative anthropology are defective, inasmuch as we cannot compare until we have described. To this objection, I reply, that we may describe without comparing. Descriptive anthropology is, like geography, no science in itself, because it only describes. Every traveller who describes the people with whom he comes in contact, whether conscious of the fact or not, is a descriptive anthropologist, but not necessarily a comparative anthropologist. Homer, Herodotus, Pausanias, Strabo, Diodorus Siculus were rather descriptive anthropologists than comparative anthropologists. Perhaps the first comparative anthropologist was Tacitus, and he was also a descriptive anthropologist. It is not, however, necessary that the comparative anthropologist should also be a descriptive anthropologist, although it may be advisable that a man should learn to describe before he begins to compare. A man might be a very good comparative anthropologist on the correct observation of his brother, the descriptive anthropologist. A man may be a very good archaic anthropologist, without knowing anything of ancient inscriptions, art, myths, or traditions, and *vice versâ*. Each branch can be defined with sufficient exactness, but cannot in practice be separated if we want to establish a veritable science of man.

Attempts have frequently been made to divide the science of anthropology into branches. Steffens, a distinguished anthropologist, who published a work on the subject in 1822,* proposed making three divisions of the science of anthropology: 1. Geological anthropology, 2. Physiological anthropology, and 3. Psychological anthropology. We also find Nasse, in the *Zeitschrift für Anthropologie*, 1825, proposing to make two divisions under the titles physiological and psychological anthropology. More than forty years ago we find him making the following remarks, which illustrate what was the meaning of anthropology to his mind at that time. "The evolution and origin of language cannot be neglected by the anthropologist. How did the variations in the human species arise? The history of human nature from the earliest period to the present time presents questions which anthropology must endeavour to answer, or at least to elucidate. Has the human race degenerated or improved? . . . . Neither is physiological anthropology an appendix to psychology, nor the latter an appendix to the former. The relations of psychical to physiological life, and *vice versâ*, belong neither to physiology nor psychology, but form an integral part of anthropology."

"The Germans possess a great advantage over English authors, inasmuch as they may, without subjecting themselves to the animadversions of hypercritics, select expressive terms from the vernacular tongue. They have thus for ethnography, *Volksbeschreibung, folks-description;* for ethnology, *Völkerkunde, folks-knowledge;* and for anthropology, *Menschenkentniss* i.e. *man-knowledge*, constituting, in a restricted sense, the science of man considered individually in all his aspects, physical, intellectual, and moral; and the science of mankind

* "Anthropologie", Breslau, 1822, 2 vols.

when viewed collectively. They look therefore upon ethnography and ethnology as subdivisions of anthropology.

I am quite willing to admit that "folks-description" is as good a term as "ethnography." "*Folks-knowledge*" is also no doubt quite equal to ethnology in scientific exactness, although Prichard, the father of English ethnology, attached a different meaning to that word; but "folks-knowledge" is certainly not so expressive as the term comparative anthropology, the suitability of which is becoming more appreciated every day.

It has been interesting to watch the discussion which has been going on during the past year respecting the definition of the words anthropology and ethnology. A remarkable feature of this controversy in our own country is the curious forgetfulness on the part of some of the combatants, of the fact that certain words are doomed to extinction, while others, by an inherent law of "selection", live and become generally accepted. The use of the word anthropology, and the development of a great science under that name, is not the work of a few individuals, but is a part of the intellectual development of Europe. The British Association has ignored this fact, and from other quarters we have received credit which we do not deserve. Some words, like some existing species of plants, animals, and even men, appear doomed to become extinct. In Germany I learn that the word ethnology has ceased to be used. Dr. Carl Vogt writes me in a letter dated August 28, 1865, "Ethnology embraces a very secondary and confined branch of anthropology; for the aim of the latter science is to study and know man in all his phases, and not merely as to the branches and peoples, into which the human race can be subdivided. Truly we should think ourselves very ridiculous, and every one would look upon us as upon those men in powdered wigs of your lords and baronets, only destined to mount behind the chariot of science, by adopting this antique word, which is no longer used in Germany. We must have the entire race, the complete *ανθρώπος*, as it is scattered and buried in the beds of the earth, and not these ephemeral apparitions, the combined results of artificial and natural selection, which are called peoples and nations."

A very praiseworthy attempt has been made on the part of some of our fellow-countrymen during the past year to act as a sort of "Aborigines Protection Society" towards the word ethnology. A periodical called the *Ethnological Journal* was started apparently for this special purpose; but nature's laws appear to have doomed this word, if not to total extinction, at least to a very modified signification from that proposed by the supporters of this periodical. In France attempts are also being made to retain the word ethnography: but the following extract from M. Léon de Rosny will show in what sense this word is there used.

M. Léon de Rosny, speaking as an ethnographer, says, "Anthropology, nevertheless, as a natural science, must not be neglected; far from it. It nevertheless seems to us, that the principles of this science remain yet to be discovered, whilst *philology* rests upon an ensemble of positive laws which preclude it groping in the dark."

He also says that ethnography is essentially distinct from anthropology—the former being an *historical*, and the latter a *natural*, science.

When it was announced before the Paris Anthropological Society on November 3, 1864, that the British Association had decided that anthropology was included in ethnology, the statement was received with roars of laughter—really the only sensible reception which could be given to such a monstrous assertion.

On this point I cannot do better than quote the opinion of Dr. Pruner-Bey, the late President, for 1865, of our parent society. In a letter to myself, dated August 26th, 1865, he says:—

"I sincerely hope that the family quarrel will be settled to your own and our satisfaction. About that truly German verbal quarrel, I must frankly confess that in this particular case, in my humble opinion, the right is on your side. Anthropology, a general and comprehensive term, signifies the science of man (in the abstract, and in every respect); whilst Ethnology is the science of nations, and falls by this specification under the head of the first. Finally, ethnography is the merely descriptive part, and bears the same relation to anthropology as geography bears to geology. Anthropology, as the present generation understands it, has to be worked out by other means and methods than those at the disposal of our predecessors.

"This last remark must not be interpreted as tending to throw blame on those men whom I have always considered as my masters, but as the simple expression of a conviction quite as deeply rooted in my mind as is my gratitude to them. Every epoch of human civilised existence has its object; and that of the present day is universal knowledge (of course within the limits of human understanding) for gradually establishing practical universal principles. If I am right in this, anthropology will not beat ethnology, but, like a hopeful child, will embrace and take care of its worthy mother."

But I need not go out of our own country to prove that ethnology is merely a department of anthropology; and, not to dwell further on such a topic, I will conclude this portion of my subject by commending the following remarks* by Professor Huxley to the notice of the Ethnological Society and the British Association:—

"Ethnology, as thus defined, is a branch of anthropology, the great science which unravels the complexities of human structure; traces out the relation of man to other animals; studies all that is especially human in the mode in which man's complex functions are performed; and searches after the conditions which have determined his presence in the world."

No one can deplore more than myself the position which has been taken by our ethnological brethren with regard to our admission to the British Association. It is quite impossible for us to see the logic of, or the reason for, the position they have there assumed with regard to our science. The only clue which, I believe, ethnologists have ever published as to their motives for opposing us is to be

* "Fortnightly Review", June 15th, 1865.

found in the columns of a recently published periodical,* in which we find these words: "If the new section is to bear the name of anthropology, its government must necessarily devolve on the Anthropological Society, which far outnumbers the Ethnological. If the name ethnology is preserved, there is at least an additional chance that the minority in the amalgamated body will retain some moderate portion of the influence due to their intrinsic character."

If this jealousy of our influence is the true cause for the opposition offered to us by ethnologists, time has been wasted on verbal distinctions. We are glad, however, to know what the real cause is. If the logic of the above extract leads us to the true reason for the opposition of ethnologists, we are willing to give them credit for acting in an intelligible manner, although we may not be able to admire such a spirit in men of science.

As long as men are influenced by such petty jealousy as that displayed in the extract I have quoted, it is not likely that they will be amenable to reason. We shall be glad to see whether they will disclaim such motives, and that in a practical manner, by joining with us to obtain a special section for the science of man in the British Association. Had they told us before that they feared a loss of influence if our name were used for the new section, we should have been ready to reassure them on that point.

At Birmingham, I officially declared that it was the thing we wanted —a special section for the science of man; and that we were prepared to make the name entirely a secondary consideration. An alliance, however, had been entered into between the ethnologists and a section of the geographers, and we were opposed on all points. Exception has been taken to the means used to prevent our carrying our proposal at some future day; and, perhaps, not without just cause. In saying this, however, I have no intention or desire to convey the impression that this society is in antagonism to the British Association; on the contrary, I wish emphatically to proclaim that such is not the fact. We are simply fighting against those who have used their power and influence to destroy the position which a part of the science of man once held in the British Association. We have a large and increasing number of supporters in the Association; and, had not the Council arrogated to themselves powers which they have never before assumed, there is no doubt we should have carried our motion next year. Under actual circumstances it was not thought advisable to give notice for the same motion until we have really some chance of carrying it.

As it is now settled, the science of man is to go to the biological section, and ethnology is to remain with geography in Section E. Is then, ethnology no part of the science of man?

I trust that the authorities will take this matter into their most earnest and serious consideration, and not allow themselves to be dictated to by anyone, but simply consider how they can best advance the cause of science. Their present position cannot be defended.

* "Ethnological Journal", September 1865, p. 145.

The cause of anthropologists and ethnologists is the same when asking for a special section for the science of man. If we were united, we could demand this from the Association. "Unite and conquer," is as true as "divide and be conquered."

Supposing, too, the loss of influence by the ethnologists is a legitimate reason for their opposition to the proposal we made last year, I would remark, then, that they are no better off where they are. At present they have not the "influence due to their intrinsic character." Fifteen years experience has shown that there can be no real scientific discussion on any branch of the science of man in Section E, as at present constituted.

I feel it, however, my duty, to take this opportunity of publicly returning the warmest thanks of myself and my colleagues to Sir Roderick Murchison, Mr. Crawfurd, and those gentlemen who have united with them to prevent our recognition by the Association. Much of our success during the past year is to be ascribed to this opposition on their part. The longer this is continued the better will it be for this Society. If, therefore, we do not obtain a section for the science of man in the Association, we gain very considerable strength from their opposition to such a proposal.

Our success is now simply a question of time. The more unfairly our science is treated, the sooner will it be recognised. The action of the Council last year obtained us very many members; and, besides this, it has aroused the energy of some of our Fellows who had hitherto taken no active part in the affairs of the Society. When the history of this struggle in the British Association comes to be written, it will be most instructive, as illustrating the state of a portion of the scientific mind of England in the middle of this century. As M. Broca well says: "The contest which has commenced before the British Association is truly very curious . . . and when all this shall have passed away, no one will ever believe in the historical reality of this resistance." The struggle began twenty years ago, and may perhaps go on for that time longer.

When the Council of the British Association recommended that the science of man should be included in the Biological Section, they no doubt anticipated that this arrangement, being some concession to our demands, might be accepted by us. The authorities of the British Association are now trying to do what was attempted with anthropology more than thirty years ago in Germany. Nasse, writing in 1823, and speaking of the attempt at separation of the different branches of anthropological science, says: "This separation has been very injurious to anthropological inquiry; for, according to it, man has been delivered up to two separate faculties—his psychical part to philosophers, his physical part to physiologists. Even at present, endeavours are still being made to keep these inquiries separate." It is not a little strange that some of our men of science should assume the same attitude towards anthropology as that taken upwards of forty years ago by some men of science in Germany.

Why all this dread of anthropology? Why do men who have spent the earlier part of their lives in furthering the cause of science, endea-

vour to attain public applause from the masses by arresting its further development? What made a leading member of the British Association utter the vain boast that he had made "the coffin of the anthropologists"? The reply to the last question may perhaps be found in the speech of Cassius.

> "Why, man, he doth bestride the narrow world
> Like a Colossus; and we petty men
> Walk under his huge legs, and peep about
> To find ourselves dishonourable graves."

Such boasters do much to bring the name and the cause of science into contempt. It should ever be the object of those who conduct this Society, to do so in such a truly scientific manner, as not to allow it to fall into the state of one, at least, of our existing scientific societies. I allude to the unfortunate position to which Sir Roderick Murchison, Bart., has brought the Royal Geographical Society. From a useful scientific body of students of physical geography, this society has degenerated under his *régime* to a fashionable *réunion*. This is not the fault of the portion of science to which that society should be devoted, but is an admirable illustration of the evil effects of courting public applause. I merely mention the Geographical Society as an illustration of what this Society may become if she were to depart from her original programme, or forget which should be the true aim of every scientific body. I am aware that there are many of the leading geographers of this country who are fully sensible of the present state of their science in England; and in time, I have no doubt that the Royal Geographical Society will resume its sphere of scientific usefulness.

So much misconception and confusion have arisen in this country with regard to the word anthropology, that I believe our real claims are not yet fully understood even by the leading members of the British Association. Their recent legislation in assigning the "science of man" to the Biological Section, and retaining "ethnology" in Section E, sufficiently indicates the crude notions which exist respecting the "science of man." According to this legislation, ethnology is not the "science of man," nor any part of it, or why keep it in another section? I can hardly understand how it is that ethnologists have not raised their voices against such a decision. However opinions may differ respecting the definitions of the word ethnology, I cannot imagine any valid reasons for their not uniting with us to obtain a special section for the science of man. The present state of things seems far worse for our ethnological brethren than for ourselves. The science of man is now allotted to the Biological Section. We shall feel more at home amongst oysters and lobsters, than when associated with the students of surface geology, commonly called geography. The Council of the British Association who came to this decision, are henceforth to decide all similar points. The confusion which this is likely to cause is delightful to contemplate. We shall watch with much interest what papers are read under the title of ethnology. Those treating of the science of man will necessarily, according to the present arrangements, be read in the section to which the science of man is to be sent. This, however, is not expressed in the report of

the Committee of Recommendations. They merely advised "that no special section or sub-section be established for the science of man." This is just the point on which all who study the science of man, or any important department of that science, must logically be at issue.

As long as this state of things lasts, it will be our duty to continually reiterate the fact that the science of anthropology is a part of no other science. Anthropology is not, like geography, a mere portion of another science. In one sense, anthropology is no doubt a branch of the science of life—biology. We can, however, imagine no real man of science coming forward and advocating that anthropology should be studied with infusoria and fungi. Whatever may be our opinion of man's relation to the rest of the animal kingdom, all must admit that, for the purposes of study, it is desirable we should separate him from both animals and plants.

Our Society has had many charges laid against it; and it is fortunate that it is not ourselves who place man amongst animals and plants. We, on the contrary, are all agreed that the many phenomena presented by the study of mankind, are of such a different nature to those met with in the study of the other mammalia, that it is expedient, advisable, and indeed necessary, that he should be studied in a separate department.

It was not, perhaps, entirely a fine sense of delicacy on the part of some anthropologists, at the recent meeting of the British Association at Birmingham, which animated them to refuse reading their papers on the science of man in a zoological and botanical section: but I believe that such action was based on something far better and more rational than mere sentimentality.

I have dwelt at some length upon the opposition our Society has received at the hands of some members of the British Association. In some cases, I believe that this opposition has been given to our demands for judicious reasons. Older and wiser men than some of us are of opinion that young societies should fight their way, and make good their position step by step, and such is our intention.

I have a good reason to believe that the adverse votes of some were given rather for the purpose of stimulating us to increased activity, than from any desire to injure the cause of our science. I trust it may be eventually seen that this was the true motive for passing the resolution that there should be no special section for the science of man.

I hope our foreign associates will take care to make this view of the matter known amongst our fellow students on the continent. If we look at the matter in this light, we are under deep obligations to the authorities of the British Association. We appreciate their kindness, and thank them for their support. We in England can fully understand such motives; but I fear that they may be misunderstood on the continent. I am free to confess, that I for some time thought that the motives for opposing us were of a different nature; but I am glad now to believe that such may not be the case. We are now considered to be on our trial, both as men of science and as a scientific body.

I have long been convinced that our position in the British Association is of little or no consequence, if we only carry out honestly and truly the objects of our society. Let us remember that the British Association for the Advancement of Science forms no part of anthropological science. We are, as regards that body, mere innovators; and they are perfectly justified in seeing that we make good our title to admittance before they accede to our demands.

We shall best do this by continuing the work we have begun. Above all things, we must avoid exhibiting a slavish desire to please the magnates of science, or to court public applause.

It is a necessary law, I presume, that all young societies and young sciences should go through a period of trial, and encounter opposition from the masses of society. It is, therefore, not surprising that, during the past year, our young society has been attacked with a virulence and an energy which we could not but admire. Early in the year it became the duty of the Fellows of the Society to discuss the influence of the civilised on the uncivilised man, brought before us by Mr. Winwood Reade, in a paper entitled "On the Influence of Christian Missionaries amongst Savages." The abuse immediately levelled at the Society, by the so-called religious press of this country, was remarkable both for the vehemence of the language employed, and for the harmony which prevailed amongst the oppositionists, who united *en masse* against us. If noise and strong language could have stopped the working of this Society, there was enough of it during the time we had the temerity to discuss the influence of missionary labours.

An important question arises for our consideration on this subject. Does such a question as the one named come legitimately within the sphere of this Society? I must say a few words on this point, because I believe that there are some who consider that such a question is beyond the bounds of the science of man. The question for us to consider was, the influence of civilised on uncivilised man; and I do not presume that any one will deny that such a question comes legitimately within the sphere of this Society. If we admit this, we at once see that the only other charge which could be brought against the title of Mr. Reade's paper was, that it singled out a special class. There was certainly no special reason why the class of Christian missionaries should have been selected, more than that of travellers, traders, or colonists, who, like missionaries, come in contact with uncivilised races. The charge of a paper being more special is, to us, rather an advantage than otherwise. But nothing could be more erroneous than to assume that, because a Fellow of our Society took up the special question of the influence of missionaries amongst savages, the Society could in any way be charged with hostility to this particular class of men. This discussion illustrates many other questions connected with the science of man. There are many subjects which cannot be said to be strictly within the domain of our science; yet only by investigating these subjects can we judge of their value, as affording material wherewith to build up our edifice. The discussion on Christian missionaries was not a pleasurable excursion into this "debateable land"; the noise on that occasion was terrific, and the

tone and language entirely foreign to scientific modes of thought. Even the strong nerves of some of our own members, who had taken part in the battles of our Society during the two previous years, were somewhat shaken, and that evening they were appalled at the danger which they considered us to be in: now, however, that it is past, we may look back temperately upon that discussion, and take warning by that experience.

Let us, in any future discussion on this point, avoid if possible treating this theme in a manner repugnant to the feelings of any class. But, at the same time, we must do this in no timorous spirit of avoiding the opposition which we shall necessarily have to encounter, but simply do our duty as a scientific body, without passion or prejudice. It has been stated, on reliable authority, that the discussions before our Society have had the effect of advancing missionary societies. We trust they will, on some fitting occasion, reciprocate our good offices. This fact may also another time make the parties less vehement in their opposition to, and denunciation of, mere pilgrims—seekers after truth. A small society like our own, can have but little power against the numerous and powerful missionary organisations which exist in this country; unless, at least, we have truth on our side, putting aside our individual opinions on such questions, but admitting our right to discuss them. I would fain wish, were such a thing possible, that missionaries would calmly unite with us to investigate the matter we discussed last year. The Bishop of Natal has led the way, and I cannot but think that other missionaries will follow his example. It should be the wish of missionaries to give us all the information and assistance in their power.

We have been blamed for touching on any religious matters, and some of our well-wishers have suggested that it might be prudent to avoid all questions which in any way bear on religion. I regret that we cannot act upon this well-meant suggestion. Religion is essentially an anthropological character, and in that light we shall always have to consider it. We cannot even describe the psychological characters of the different races, without dwelling on the tendency of some to believe in monotheism, and of others in polytheism. No anthropologist, worthy of the name, can fail to observe these things, or to record them.

While, however, it is our duty to take cognisance of what men do believe, we disclaim every wish or desire to prescribe for them what they ought or ought not to believe. It is here we draw the line of demarcation; and those who take the trouble to examine it, will be compelled to avow that it is a broad and distinct one.

We are a young society, and desire to conform as far as possible to the existing rules of scientific societies; but this conformation with old-established societies must be more that of spirit than of action. Founded as our Society is on many of the rules of the Geological Society, I hope the same spirit of independence and determination to fight against public opinion exists amongst us, as existed, and even now exists, amongst some of the great champions of scientific truth and freedom of inquiry, such as Buckland, Adam Sedgwick, De la

Beche, Lyell, Darwin; and, indeed, all these men have shown that they valued the cause of truth more than public applause.

This sympathy with all true scientific workers of the day, I hope will always exist amongst us: but the working out of the administration of our Society cannot be done precisely on any existing model. Our success has been unprecedented in the history of scientific societies of this metropolis; and this success must be ascribed more to the suitability of our plan to the wants of the time than to any other cause. We must strive to imitate what is good in all societies; and we can estimate at their true value the denunciations of those whose language is of that nature which can alone be dictated by rancorous jealousy.

Great as has been the success of our parent society in Paris, it bears, as M. Broca writes me, no comparison to the rapid progress our own Society has made within so short a time. It affords me much gratification, also, to announce that the part of our plan which has been much condemned in some quarters, viz., the publication of translations of foreign works, is to be followed by our fellow students at Moscow. We must all rejoice that such is to be the case. Let us never forget that there is but one science of anthropology, although there are many languages in which that science is enunciated. The Moscow society intend to publish their own works in Russian, into which language English works are to be translated. I mention this fact with peculiar gratification, because it illustrates the appreciation of the plan of our own Society.

It is of importance, also, that we should increase our scale of usefulness by augmentation of the number of our Fellows, or we shall not long be able to retain the leading position, as regards numbers, which we now possess amongst the different anthropological societies of Europe. Our Madrid associates, although they have only just commenced their sittings, have already three hundred members enrolled. The first number of their Journal is shortly expected to appear; and altogether there is an amount of activity and zeal in this young society, which is both gratifying and encouraging to us.

Our fellow-students across the Channel acknowledge and remind us of the fact, that our opportunities for the study of anthropology are far greater than their own. The large colonial possessions of this country bring us into close contact with nearly every existing race of man. This has been going on for generations, yet to our national shame be it said, our anthropological museums are far inferior to those of the French, or even of the Danes. The state of the crania in large museums, like that of the Edinburgh Antiquarian Museum, and the Hunterian Museum at Glasgow, is simply a disgrace to our science.

When recently in Orkney, I was informed of the destruction of crania which had been found associated with stone and bone implements.* Large numbers were found at one place. The stone and bone

* See Wilson, also, who gives an account of the destruction of twenty-seven skulls in Orkney. "Prehistoric Annals of Scotland", vol. i, p. 120.

implements were taken, but the skulls were left to be destroyed. If such things are going on in this country, we cannot wonder at the small amount of attention and care given to the collection of crania in our colonies. It is to enable us to cope somewhat with the neglect of our science that we have organised a staff of local secretaries. Eventually, I have no doubt, this department will work well. The fact that we have yet seen but little result from it, must be attributed to a great extent to a want of a sufficient staff to work out properly a large undertaking of this nature.

Some look at our success as unprecedented up to this time; but without any desire to depreciate what we have hitherto effected, I must express my opinion that our work is still only beginning. What we have done, has, I believe, been effected by genuine work, and by a unity of action between the officers and the Fellows of the Society generally. We want now to bring our local secretaries more immediately into sympathy and action with the Society.

These things will, I have no doubt, all be effected in time. All our continental Associates look to us to utilise the enormous anthropological riches which belong to this country, and I trust we may be able to satisfy their high expectations. This must, however, be a work of time. We shall merely be able to make collections which future generations may utilise. Tribes of men are constantly becoming extinct, and we shall be guilty of neglect if we omit doing all in our power to procure sufficient typical specimens of crania while we have it in our power. The neglect I have referred to in this country is not simply a deficiency of crania, but we possess also a very limited collection of works of industry of the different races of man. If we judge of what was achieved in a few years by the late lamented Henry Christy, we shall have sufficient encouragement, to be sure of being rewarded for our labour when we once set seriously to work.

Our Library, too, possesses only a small number of books; others must be obtained with as little delay as possible. I trust that, before another anniversary, both our Museum and Library will be greatly developed. The Council have committed both the Museum and Library to Mr. Blake's entire charge, and have freed him of other duties in order that he shall be able to devote sufficient time to the Library and Museum.

I shall avoid, on this occasion, alluding to the works which have been published on the various branches of anthropology during the past year. It will now become the duty of your Librarian to keep a complete record of all books published on our science, and I have no doubt that this record will be published for the use of the Fellows. A large number of pamphlets and articles are continually appearing on the different subjects connected with anthropology; and to keep a complete record of these, together with the titles of all papers contributed to the different anthropological societies, cannot fail to assist materially those who are engaged in the study of our science. Mr. Blake, I believe, will endeavour to make this record complete from the time of the formation of our Society. While we have con-

fided the Museum and Library to Mr. Blake, we have had the good fortune to obtain the services of our late Honorary Secretary, Mr. J. Frederick Collingwood, as Assistant Secretary. I cannot but heartily congratulate the Society on having secured the services of a gentleman so eminently qualified for the office as we know Mr. Collingwood to be.

During the past year the Council have been consulted as to the expediency of forming local branches of the Anthropological Society in the chief towns of Great Britain. For the present we have advised the postponement of any such attempt. If we once begin a system of branch societies, we should endeavour to do so on an extended scale. We have had applications on the subject from India and Australia, and the time will come when we must be prepared to act in this matter. We are simply waiting for sufficient strength to carry out such a large undertaking. If we wish to keep the position we have assumed we must continue to march onward. Since our foundation, societies for the study of anthropology have been developed all over the world in a manner unexpected to many.

Having touched on a few points in connection with the development of our Society during the past year, let me now make some observations on the position of anthropology both in this country and throughout Europe. We are rejoiced to see that our science is becoming developed in this country, not only by members of our own Society, but also by many who have not yet united with us. The study of mankind has acquired a life and vitality which the leaders of some of the older scientific societies seem to think entirely disproportionate to its merits. Men of the last generation fail to see that anthropology is the science of sciences. But there is no mistaking the tendency of the age. Scientific men, like Professors Huxley and Rolleston, who, a few years ago were devoting their energies and talents to palæontology and zoology, are now aiding us in our work. Professor Huxley has been both lecturing and writing on our science.

An organisation has been started during the past year, entitled the "Anthropological Lecturing Club," whose chief office, it appears, is to attempt to popularise our science. The Anthropological Lecturing Club, like all other young institutions, will have to fight its own way in the world, and is, I believe, competent to do this without any help from myself. To those who have watched the gradual change which time has wrought in public opinion with regard to our Society, the manner in which the club was ushered into the world is full of encouragement for its future success. The attacks made on this club reminded us of the shouts of execration with which we were greeted from a portion of the intelligent leaders of public opinion in our younger days. But if this denunciation of lectures on anthropology is based on truth or justice, is it a wider application than those who attack it seem to think! I do not now feel called upon to justify an attempt to popularise either anthropology or any other natural science. I am fully conscious that, on such a point, there is a considerable difference of opinion existing amongst men of science. I am, however, free to avow myself entirely in favour of the diffusion of all useful knowledge, and even of the elements of our science amongst the thinking public. Men of this

generation can hardly remain silent and inactive when they see the evil effects of the ignorance of anthropology both in our statesmen and our politicians. The great question of "RACE" underlies the whole of their efforts, but they fail, or refuse to see it. It is melancholy to reflect that the destinies of nations are entrusted to men who look with supreme contempt on all such "vulgar errors" as race-distinctions. Perhaps the man who, more than any other statesman of our time, has shown himself incapable of seeing the facts in their true light, is the present prime minister of England. Educated in the pseudo-philanthropic school of Wilberforce and other well-intentioned men, he is ignorant of the merest elements of the science of comparative anthropology; or even of the well-ascertained and undisputed race-distinctions on which that science is based.

Upwards of fifteen years ago, one of the most eminent anthropologists of the country, declared that there would be a Negro revolt in Jamaica. I quote Dr. Knox's own words:* "From Santo Domingo, he (the Negro) drove out the Celt; from Jamaica he will expel the Saxon; and the expulsion of the Lusitanian from Brazil is only an affair of time."

These words appear to the mind of the vulgar prophetic; but they were based on sound theories, ignored by nearly all our then statesmen. Some of our countrymen, however, do not spend their lives amongst diverse races of man without learning something practical as to their psychological and moral characteristics. In the recent outbreak in Jamaica, the Negro found himself overmatched; and we anthropologists have looked on, with intense admiration, at the conduct of Governor Eyre as that of a man of whom England ought to be (and some day will be) justly proud. The merest novice in the study of race-characteristics ought to know that we English can only successfully rule either Jamaica, New Zealand, the Cape, China, or India, by such men as Governor Eyre.

Such revolutions will occur wherever the Negro is placed in unnatural relations with Europeans. Statesmen have yet to be taught the true practical value of race-distinctions, and the absolute impossibility of applying the civilisation and laws of one race to another race of man essentially distinct. Statesmen may ignore the existence of race-antagonism; but it exists nevertheless. They may continue to plead that race-subordination forms no part of nature's laws; but this will not alter the facts. All who have candidly studied the question know that, if there is one truth more clearly defined than another in anthropological science, it is the existence of well-marked psychological and moral distinctions in the different races of man.

The sublime contempt which a portion of our politicians have for the opinions of those who have studied the Negro all their lives, would be amusing, were it not melancholy and pregnant with consequences of the most momentous nature. I allude to these facts from this chair because the next generation will then be better able to understand the gigantic work which we have before us. We can easily under-

* "Races of Men", 1850, p. 456.

stand why those powerful organisations called missionary societies get up public meetings, condemning such men as Mr. Eyre, in unmeasured terms of abuse, but we cannot understand statesmen pandering to the prejudice and passions of the mob. If missionary societies have such a power amongst our ignorant masses, how can we wonder at their influence on men like the Negro, who have little to guide them, save passion and feeling?

I have alluded to Earl Russell once, and I regret to have to do so a second time. The present case is one on which I am sure I shall gain the undivided sympathy of the Fellows of this Society. I wish to take this opportunity of pleading the cause of a poor neglected Fellow of this Society, who has the misfortune to be in the service of the present government of Great Britain, and whose name is Captain Cameron. The Christian monarch who now holds our fellow-student in chains, has rendered all who have the name of Englishmen utterly contemptible to his countrymen. Delay to the African mind is victory. We are now at the mercy of the King of Abyssinia, whether we shall ever see our friend again. A little prompt action on the part of our then foreign secretary of state, might have saved him from all his sufferings, and the name of Englishmen from disgrace. It may be too late now to save Captain Cameron, but I think I do not go beyond the bounds of the President of this Society when I publicly proclaim and denounce the apathy which has existed in the government of this country with regard to him.

Should Captain Cameron again fortunately return to us, he will be able, perhaps, to add a few more facts to what is already known with regard to the African race; but his experience, we suppose, will receive just as much attention as though he had never left his native country. A Fellow of our Society—Dr. Jules Blanc—has gone to attempt his rescue with Mr. Rassam, and I sincerely trust their efforts may be crowned with success.

Is it our duty to "rest" or be "thankful," whilst such things are going on? Is it not rather incumbent on us to raise a protest against the manner in which well ascertained facts with regard to race distinctions are argued by those whose duty it is to become acquainted with them? If this Society fails to publish to the world all the facts at present known with regard to this question, she will not be discharging her duty or fulfilling her place in the development of true scientific principles for human guidance. Let us not "rest," but rather arouse those whose duty it is to carry out our deductions, to a sense of their responsibility, if they neglect truths so clearly demonstrated as race-antagonism and race-subordination can be. In these two phrases are summed up great and permanent truths. Neither race-antagonism nor race-subordination was invented by us; they were simply phrases to express truths, which were as true thousands of years ago as at the present day. The existence of both is demonstrated by facts. It is an error to suppose they are mere hypotheses; they are, on the contrary, theories founded upon all authentic history, and upon well ascertained facts.

The time will come—whether we shall live to see it I know not—

when a knowledge of the science of anthropology will be required of all seeking appointments in our colonial or foreign possessions, and when our statesmen will be required to act on the deductions of our science. The time, too, will surely come, when it will be made a branch of national education; when the professor of history in our universities shall become the professor of historical anthropology; and when the professor of political economy shall become the professor of comparative anthropology.

Opinions may differ as to the time required to effect such changes; but our science cannot fail ere long to be recognised in some form, even by those who are most opposed to what they suppose to be its teaching. These are things, however, of the future, and I only mention them now to urge all to renewed exertions on behalf of our sublime science. If we but once realise not only the grandeur, but also the practical advantage of anthropology, we shall no longer look with wonder at its development, but be ready to put our shoulder to the wheel. There are yet hundreds, if not thousands of men in this country who could render our science good service if they only realised its scope and practical bearing.

Our Society at present is only the nucleus round which we may all work according to our lights. It is true that we have refused many who have sought admission to us; but we have only done this when we considered that such applicants were not likely to render service to the cause of science. The different shades of scientific opinion which are now represented in our Society, form the best guarantee for the free and full discussion of the topics brought before us. It is gratifying for us to know that the resignations this year have been relatively fewer than on any previous year. A young society is always liable to lose a large number of its early adherents. There are a large number of restless minded men who seek admission into any young society, hoping to find a congenial sphere for the display of their surplus energy, and wherein they can ventilate their individual crotchets. We have had some such amongst us; but they were not a class likely to aid our Society or our science. Scientific societies are not intended to be theatres for the display of the eccentricities of their members, or for the ventilation of individual crotchets or crudities, but for the real advancement of science.

A Presbyterian divine has recently well observed:* "This is pre-eminently an age of science, and the culture of this age is emphatically scientific. Men may, therefore, be great classical scholars, and possessed of the highest culture of a certain sort, but unless they possess the training, or are imbued with the spirit of science, it is the culture of another age, not of this. Now all who possess such a training and spirit, believe in the undeviating constancy and order of nature's methods or laws. Science could not proceed a step without such a belief." Our Society seeks only such fellow-labourers as are really imbued with this spirit; for, unless they are so, they cannot aid the

* "Divine Providence in its Relation to Prayer and Plagues." By Rev. James Cranbrook. Edinburgh: 1865.

cause of true science. We desire men who can be both logical and consistent; for it is by such alone that science can be advanced.

We want all who sympathise with our labours; and we welcome to our ranks all real seekers for truth, and all advocates of free inquiry. The real enemies of truth are those who would stifle inquiry, and desire to temporise with popular ignorance, arrogance, and superstition. Mankind have nothing to fear from the study of themselves. On the contrary, they will gain much by a better knowledge of their natural relations to one another, and to the rest of the organic world. While, however, we invite others to join us, we must remember that the work of this Society and the development of anthropological science in this country now devolves on ourselves. Let us all be stimulated to renewed exertion to forward the cause of truth during the coming year. Let each man use the whole of his individual influence and talent on behalf of the common cause, in order that on our next anniversary we may be able to rejoice, not only in continued but in increased prosperity.

The address was received with much applause; and, at the conclusion of it, the thanks of the meeting were warmly accorded to the President, on the motion of Mr. C. R. des Ruffières, seconded by Mr. J. Macclelland.

The President returned thanks; and at the same time announced that, on Thursday next, the committee for drawing up instructions for the Local Secretaries would commence sitting, and he trusted that suggestions would be given to them by the Fellows generally, as it was a matter of considerable importance that the instructions should be comprehensive, and be carefully drawn. He also mentioned that Mr. Collingwood would enter on his duties as Assistant-Secretary from that day.

The Scrutineers then reported that they had examined the balloting papers, and found that the officers proposed for the next year had been unanimously elected, according to the following list:*—

President—Dr. James Hunt, F.S.A. *Vice-Presidents*—Capt. R. F. Burton; Dr. Berthold Seemann; T. Bendyshe, Esq.; *Dr. R. S. Charnock. Secretaries*—W. Bollaert, Esq.; H. J. C. Beavan, Esq. *Foreign Secretary*—A. Higgins, Esq. *Treasurer*—*Rev. Dunbar I. Heath. Council*—S. E. Collingwood, Esq.; J. W. Conrad Cox, Esq.; Dr. G. D. Gibb; *J. Meyer Harris, Esq.; Henry Hotze, Esq.; G. W. Marshall, Esq., LL.M.;* The Viscount Milton; G. North, Esq.; L. O. Pike, Esq.; G. F. Rolph, Esq.; C. R. des Ruffières, Esq.; T. Tate, Esq.; W. Travers, Esq.; W. S. W. Vaux, Esq.

The thanks of the Society were given to the Scrutineers, on the motion of Dr. Beigel, seconded by Mr. Pinkerton, and the meeting adjourned.

* New members in italics.

January 16th, 1866.

James Hunt, Esq., Ph.D., F.S.A., F.R.S.L., President, in the Chair.

The minutes of the previous meeting were read and confirmed.

The names of the following gentlemen, who had been elected, were read:—

Fellows—F. E. Davis, Esq., 53, Leicester Square, Bayswater; Commander Bedford Pim, R.N., Belsize Square, Hampstead.

Corresponding Member—Dr. Pott, Halle.

Local Secretaries—W. T. Pritchard, Esq., F.A.S.L., Mexico; Dr. H. F. Hance, Whampoa; A. H. Wilson, Esq., Pará.

The presents to the library and museum were also announced, as under:—Bateman's Catalogue of Antiquities; Catalogue of Victoria Exhibition (K. R. H. Mackenzie, Esq.). Verba Nominalia (Dr. R. S. Charnock).

The President said that, before proceeding with the business of the evening, he wished to make the important communication that Mr. William Thomas Pritchard, F.A.S.L., F.R.G.S., late Her Majesty's consul at the Fiji islands, had been appointed special commissioner from the Anthropological Society of London, to inquire into the causes of the recent negro insurrection in the island of Jamaica. The well known character and ability of Mr. Pritchard, was a sufficient guarantee that he would furnish the Society with a true and faithful record of the anthropological causes of that insurrection. He felt assured, therefore, that the meeting would be glad to hear that that gentleman had undertaken so important a mission.

The following paper was then read.

Some Remarks on the Origin, Manners, Customs, and Superstitions of the Gallinas People of Sierra Leone. By J. M. Harris, Esq., F.A.S.L.

(This paper will appear at length in the *Memoirs*.)

The tribe or people now known under the name of "Gallinas," in consequence of their being located upon the banks of the river so called by the Spanish and Portuguese slave-traders, appears to be an offshoot of the great Mandingo tribes; and probably migrated from the interior, beyond the Koronkho country, to the seaboard, about two hundred years ago.

The Gallinas people still at times use the bow and arrow, and appear to have retained many of the customs and habits of their ancestors, who were probably pure Mandingoes.

These people have apparently for many years acted as brokers to the slave-dealers, and for a long period depended entirely upon the slave-trade for means of obtaining food, clothing, etc.; and it is entirely within the last few years that they have turned their attention to work. The soil of the Gallinas country is sandy, barren, and unfit for cultivation; and it is a mistake to suppose that this country produces any article of export, for it is the Crim country on the one side, and Goorah on the other, where the produce is collected. The cloths are made principally in Kissy, and find their way down to

the coast as a medium of exchange for salt and other commodities. There are very many of the Gallinas people who carve wood, palm-nuts, etc., and who make wooden spoons and plates, as well as iron-work of different kinds.

As a rule, the Gallinas people are inveterate gamblers; they play various games, the principal one being called by them *warri*, but it is common to nearly all parts of Africa under different names. It is played with a board having twelve holes, and forty-eight seeds. One of these boards was exhibited, and showed the style of carving executed by the Gallinas people. They have many other games besides *warri;* and they frequently play until they have lost everything they possess, even placing their wives and children in pledge, and, as a last resource, stake their own liberty on the chances of the game.

The Gallinas all, more or less, profess Mohammedanism; and the chiefs usually send their sons into the interior for several years to learn the Mandingo tongue, to enable them to read the manuscript Koran used in the country. They are excessively superstitious, and have almost unlimited belief and confidence in anything made by any bookman—that is, people who have a written language, as Mohammedans, or Europeans, Americans, etc.

The author concluded with an interesting account of the *porra*, a religious and political institution.

The thanks of the Society having been given to Mr. Harris,

Dr. Seemann remarked on the curious custom which appeared to exist among the Gallinas, of the women having no intercourse with their husbands until the children to whom they had given birth were three years old; and he observed that a similar custom prevails also among the natives of the South Sea Islands.

Mr. Pritchard confirmed the statement of Dr. Seemann, by observing that the practice of the women not having intercourse with their husbands while suckling their children, prevails in all the islands of the South Pacific. The practice is connected with polygamy, for at those times the men paid attention to their other ladies.

Dr. Beigel inquired what was the manner in which the men and women of the Gallinas people dressed their hair?

The Rev. Dunbar Heath asked whether reverence of animals was observed in other parts of Africa, especially whether reverence was paid to animals that had particular marks? He said he asked the question because, in ancient Egypt, it was the custom to worship animals that were marked in a particular manner. With respect to the games mentioned in the paper, there was a similarity between them and some of the games of the ancient Egyptians; and the way in which the Gallinas went to war and returned with slaves, was also like the practice of that ancient people. Observation of the habits and customs of these African tribes was important, as it might serve to throw light on their connection with the ancient inhabitants of Egypt.

Major Owen, referring to that part of the paper which alluded to certain ceremonies practised on the young women, inquired whether the clitoris itself was excised and removed?

Mr. PRITCHARD said he was acquainted with places in the Pacific where the same name was applied to the operation on females as to circumcision in men; but the custom was not general in the Pacific islands, and in the cases where it was practised it was not known generally among the tribe. He could not learn any other motive for the operation than the prevention of the woman from having illicit intercourse with the man, as it was supposed they could not have connection with a man after the operation was performed. A piece of sharpened bamboo was inserted, and the parts were wounded at random, and a considerable flow of blood took place. The girl operated on was made to believe that it rendered her incapable of having children. In some islands on the Pacific, the hair was eradicated from the labia; he could not obtain from the natives any precise information as to these customs.

Mr. C. CARTER BLAKE observed, with reference to this peculiar custom, that the practice of amputating the clitoris existed among the ladies of ancient Rome, as any reader of Martial's "Epigrams" well knew. With respect to the three skulls which Mr. Harris had placed on the table, and presented to the Society, he observed that one of them, belonging to the Vey tribe, was superior to the usual development of the skulls of natives of the Gold Coast. The second was the skull of a Goora, believed to be a tribe of the Gallinas. It was an interesting skull, being higher in the palate than most negro skulls, and the foramen was rather more forward. The third skull was, however, the most interesting. It was that of a Kruman, one of a tribe of African negroes who are readily acclimatised, and they are commonly carried in European ships to act as cooks. The specimen on the table was, however, a very debased skull, as regarded its animal character; it was, in fact, almost of as low a grade as the skull of man could attain. It was the second lowest of the collection in the Society's Museum. The other one was that of an Australian, and in whatever light it might be considered—whether as approaching the missing link between man and the lower order of animals, or otherwise—it was very remarkable. The skull on the table was particularly interesting, because the coronal suture had a tendency to become connate, and along the inter-parietal suture there was a distinct projecting ridge. In the collection of the Society, and in that of the College of Surgeons, there were skulls in which similar ridges were distinctly developed, but it was a curious fact that this was the first negro skull he had observed which presented the same character to such an extent as in this skull.

Dr. BEIGEL said he did not perceive that the coronal suture had any tendency to come into connection near the parietal bones. He did not conceive that the ridge alluded to was prominent enough, as to be of great importance, for similar elevations were to be seen in European skulls. For his own part, he did not believe there was such a close connection between the form of the skull and the capacity of the individual, as some persons supposed; but that was a subject on which he would dwell at another time.

Mr. HARRIS, in reply to the questions and remarks of the previous

speakers, said that the Gallinas use combs for their hair; they use combs with fine teeth, which are about the length of a man's finger. With regard to their reverence for animals, he said that one tribe did not eat goats, and that others reverence alligators. He mentioned the fact, that an old man had an alligator that was quite tame, and fed out of his hand. With regard to the Poorah, it was an institution somewhat similar to freemasonry, and those who were initiated into it, understood one another by signs not known to the rest of the tribe. It was originated, he believed, for the purpose of making laws, all of which were settled in the bush. As to the skulls, one was that of a Vey; his father was a native of Kissy, situated about 200 miles in the interior, and his mother was the descendant of a white man. He (Mr. Harris) knew him well. He was a man of great bravery. He was killed in a skirmish, and fought with so much valour that he received four cuts before he was killed. The Goorah skull was that of the king of the Goorah people, whose country is about sixty miles from the coast; they are civilised, and carry on many manufactures. The other skull, whatever might be its characteristic developments, was that of an intelligent man who had a very good temper. The Krus are considered to be the most intelligent of the negro tribes.

The following paper was then read:—

Remarks on Genealogy in connexion with Anthropology. By George W. Marshall, LLM., F.A.S.L.

(This paper will appear at length in the *Memoirs.*)

This paper was professedly suggestive of the value of the study of genealogy to anthropological science. In discussing the means which a knowledge of genealogy affords us of becoming better acquainted with the history of mankind, and with the origin of different nations, Mr. Marshall observes, that the study of genealogy is a passion inherent in the whole human race, whether living in a barbarous or civilised state, and accounts for this taste by mentioning those natural causes which in the first stages of civilisation place one man above his fellows. The value of genealogy, as tending to elucidate the physical formation of man, as well as his mental capacity, is instanced in reference to consanguineous marriages, family resemblances, hereditary diseases, and such like. The same characteristics are observable in animals as in man. The chief difficulty in the way of the anthropologist who would use genealogy as a means of studying man accurately, is that of certainly ascertaining pedigrees for any length of time; this defect is now being remedied, at least for future generations, by a more extended system of national registration.

The paper concludes by defining genealogy, as connected with anthropology, as "the science of investigating the causes which lead to the intellectual and physical development of man, or contribute to his decline, so far as he is influenced by the condition of his progenitors." Hitherto genealogy has not been scientifically studied; ere long we hope to see it receive that share of attention from sci-

entific men which, if Mr. Marshall's suggestions be of any value at all, it appears to merit.

The PRESIDENT, in proposing the thanks of the Society to Mr. Marshall, said they were particularly indebted to him for introducing that subject to their notice. They had that night heard two excellent papers, by Fellows of the Society, who had contributed for the first time, and he trusted they would be the forerunners of many others from them. The course of investigation suggested in the second paper had not hitherto received the attention to which it was entitled, and they should be bound in future to give it their best consideration. With regard to the number of ancestors which it was asserted a man might have, he considered the calculations about the per centage of blood a mistaken notion. It was not a question of mixture of blood in arithmetical proportions, but it was a physiological question entirely, as to the increase or propagation of race. The effect of intermarriage of relations was also a question of physiology. He regarded the collection of national portraits as most interesting in an anthropological point of view, as it would afford the opportunity of comparing the features of those who had distinguished themselves in times past with those of the present day. Historical anthropology was an interesting branch of the science of man, and he hoped the suggestive paper read by Mr. Marshall would stimulate further inquiry, and be the means of collecting facts that would throw more light on the subject.

Dr. BEIGEL observed that genealogy, in the sense defined by the author of the paper, was in reality anthropology. What had hitherto been considered genealogy was nothing more than the determination of what man was the ancestor of another; what relation, in short, Tom was to Harry. But when they proceeded to consider what the physical condition of Tom was, that subject of inquiry became anthropology. In one sense, indeed, the science of anthropology might be considered to embrace all sciences, and according to the definition of genealogy given by the author of the paper, it would certainly be comprised in the science of man. It was said to have been proved that there is not an innate superiority in one man over another, and the interest of genealogy arises from the knowledge gained by it of the influences that make one man superior to another. If the author inquired of the gentleman near him (the Rev. Dunbar Heath) who was his ancestor, that gentleman would tell him that his ancestor was a monkey; it became an interesting point to be ascertained, therefore, what changes had occurred and what influences had been exercised to make a monkey so eloquent a speaker as Mr. Heath. He thought that there was something innate in all races, but that there must be special circumstances to raise one man into a higher state of knowledge than another.

Rev. I. DUNBAR HEATH said, that having been referred to as the descendant of the most ancient classes, the quadrumana, he felt bound to make some remarks on the question. He could not quite agree with Dr. Beigel in his definition of genealogy. In considering the question, they should view the influence of lineal descent, as well as

other influences distinct from it. He did not agree with the President in the opinion that by regarding the subject physiologically, they were prevented paying any attention to it arithmetically, as denoting the degrees of relationship; he thought that the two methods of looking at it might be properly combined. There are external influences which commence with the quickening of the embryo in the mother's womb, and there is something else which influences the character. The external life of the mother, independent of the father, had no doubt great influence, but was there not something more than that? Was there not something in the race? In the formation of character, the race and the external circumstances should be both considered. Genealogy would afford help in making the investigation, and in that manner genealogists would work for them as anthropologists.

Mr. Mackenzie said he differed from Dr. Beigel in considering genealogy the same as anthropology, for he thought there was the same difference between them as there is between topography and geography. It was carrying out in individual characters the investigations which ethnologists applied to races, and anthropologists pursued in respect to man as an organised being. It was known, for example, that certain parasites were generated in certain families, and it was important to trace such peculiarities to their source. It was a fact that that peculiarity exists, and among some families high in the scale of social life, and to a degree to make it very unpleasant. Genealogy might assist anthropology in the inquiry to what source that peculiarity is to be traced, and by that means they might remove from some aristocratical families the disgrace of having originated such diseases.

Mr. C. Carter Blake observed that the paper referred to several topics of great interest. Among others, it referred to the results of consanguineous marriages, which subject had been often considered by the Anthropological Society of Paris, and some papers bearing indirectly on the subject had been read and well discussed in the Anthropological Society of London. He regretted that so few facts had been brought forward by the author of this paper as to the results of consanguineous marriages, and he should be glad to have some such facts adduced on a future occasion. In the observations that had been made on the paper, he was surprised to hear Mr. Mackenzie repeat an anecdote that had no foundation, relating to the Percy family, who were said to be infected with the parasite *Pediculus hominis*. He believed that absurd legend rested on an equally absurd slander in the play of the *Merry Wives of Windsor;* and that the whole affair was utterly ridiculous, and unworthy to be noticed at a meeting of the Anthropological Society. They were in want of facts also on the subject of human hybridity, which it was very desirable should be obtained. In Paris a great number of facts bearing on those subjects had been collected, also at Moscow and in southern Russia; and the inquiries that had been instituted, he hoped, would be carried out in detail, and that the results would be communicated to the Anthropological Society of London.

Mr. GOLDSMID said they could scarcely expect many facts to be stated in a paper that was merely suggestive; and he thought that the objections urged by Dr. Beigel—that immediately they went beyond the strict limits of the subject of genealogy, they entered into a larger and inconsistent field of inquiry—would apply to almost everything. No science was so much mixed up with the general nature of man as anthropology, therefore it must be almost necessarily connected directly or indirectly with physiology and other natural sciences. The study of genealogy, he considered valuable to the anthropologist, as it tended to show what influences that affect man's nature may be said to depend on external circumstances, and what are innate properties. One fact deserving of notice, as shewing this, he would mention, the thickness of the lip of the members of the House of Hapsburg. They had all of them been subject to the same social influences, and that peculiarity was observable in almost every branch of the family. Another instance was that of a gentleman belonging to a great aristocratic family, who had one white lock of hair, though his hair was generally dark, which peculiarity had been transmitted to him from a distant ancestor. He mentioned these cases to show that the author of the paper had opened a field of inquiry to anthropologists, from which many extraordinary facts bearing on the study of man might be elicited.

Mr. PRITCHARD stated that among the natives of the Pacific he had met with individuals who had a white lock amongst the surrounding dark hair, which was said to be hereditary. With respect to the question of consanguinity, he stated that there are many of the small or *atoll* islands in the Pacific where the natives trace back their origin through three or four hundred years to the few persons who, drifting from their homes, originally landed there. The descendants of these persons intermarried, and all the inhabitants were related to one another; yet, speaking generally, there were no signs of madness or of any other serious mental affection among them.

Mr. MACKENZIE denied that he had made any special allusion to the Percy family when speaking of parasites. He believed that such diseases prevailed in a great many other families, but not in that one alone.

Mr. MARSHALL, in replying to the observations on his paper, said he meant it to be suggestive merely, and therefore he had not thought it necessary to mention more facts. He thought Dr. Beigel had rather misunderstood his meaning in his definition of genealogy, which, in an extended view, includes every kind of historical study. With regard to the facts adduced by Mr. Mackenzie, of physical peculiarities running in families, he had no doubt that many such instances as mentioned exist, but insanity and scrofula, which are also transmitted in families, were much more important subjects for consideration. Many such examples might be adduced, and a very remarkable one in a family even higher than that of Percy. Hereditary personal resemblances were well known to exist; and in addition to the instance of the Bourbon chin, alluded to by Mr. Bollaert, he might mention the strong resemblance of the Prince of Wales to the face of George

III, as stamped on the coins of his reign. The family histories and portraits of many English families afford numerous examples of the same kind. He remarked, in conclusion, that the great families in this country claim to be descendants from many sources, but that there are only one or two who claim to be descended from the Danes.

The PRESIDENT announced that the Council had decided to hold an extra meeting, at which Captain Bedford Pim would read a paper on the causes of the Negro insurrection in Jamaica. In consequence of its having become known that Captain Pim was about to deliver an address on that subject, there had been a great demand for admissions, and it would be requisite, therefore, to hold the meeting in a larger room.

The meeting then adjourned.

SPECIAL ORDINARY MEETING AT ST. JAMES'S HALL.

FEBRUARY 1ST, 1866.

JAMES HUNT, ESQ., PH.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the last meeting were read and confirmed.

The following list of members elected since the last ordinary meeting was read:—E. Charlesworth, Esq., F.G.S., Whittington Club, E.C.; I. E. B. Cox, Esq., Middle Temple, E.C.; James Gowans, Esq., 16, Salisbury Street, Edinburgh; David Lloyd, Esq., 26, Birchin Lane, E.C.; Nidda Genthe, Esq., LL.D., 8, Bedford Place, W.C.; Monsieur E. G. Mèry, Gaboon, West Africa; H. Mills, Esq., Arlington Place, Broughton Lane, Manchester; John Robbins, Esq., 372, Oxford Street; T. Valentine Robins, Esq., Sidney Cottage, Halebank, Ditton, Liverpool; John Taylor, Esq., 316, St. Vincent Street, Glasgow.

The following Local Secretaries were elected:—R. B. N. Walker, Esq., F.A.S.L., Gaboon, West Africa; Irwin E. B. Cox, Esq., B.A., Hertfordshire.

A paper was read by Commander Bedford C. Pim, R.N., F.A.S.L., entitled "The Negro at Home and Abroad."

In the discussion on the above paper the following gentlemen took part:—Messrs. Aria, Semper, Winwood Reade, Hibbert, Liggins, Harris, and Seemann.

[A full report of the proceedings of this meeting will be found in a special number of the *Popular Magazine of Anthropology*.—ED. J.A.S.L.]

February 6th, 1866.

James Hunt, Esq., Ph.D., F.S.A., F.R.S.L., President, in the Chair.

The minutes of the previous meeting were read and confirmed.

The names of the following gentlemen who had been elected Fellows and Local Secretaries of the Society were then announced. Francis Campin, C.E., 6, Salisbury Street, Strand; Thomas Edmondston, Esq., 6, Albany Street, Edinburgh; Benjamin Hinde, Esq., M.D., Tarbert, co. Kerry; Louis Henry Mignot, Esq., 50, Upper Harley Street, Cavendish Square; W. S. Pendon, Esq., M.D., 13, Wellington Street, Belfast; James Pinnock, Esq., The Hawthornes, New Road, Hammersmith; Capt. James Smyth, 69th regiment, North Camp, Aldershot; A. Walker, Esq., Preston, Kirkbean, Dumfries. *Local Secretaries:*—Theodor A. Rosenbusch, Esq., Sierra Leone; George Mott, Esq., Morningside, Victoria.

Mr. Blake announced that the following presents had been received, and thanks were voted to the donors. Photographs of Australian Aborigines (John Fraser, Esq.); Les Statues du Priape (W. Eassie, Esq.); On the Feebleminded and Idiotic (Dr. P. M. Duncan); On the Mammary Glands of Echidna Hystrix (Prof. Owen).

Mr. Beavan said, A letter has been received by the Hon. Sec. from Mr. G. Jasper Nicholls, our Local Secretary at Oude. In this communication Mr. Nicholls desires to inform the Society that he purposes investigating the country stretching from the Santhal Pergunnas in the central provinces to the ancient boundaries of the Telenga country. This expedition will doubtless be of great use to anthropology; but Mr. Nicholls requests direction and information concerning those points especially to be noted by him. The forthcoming instructions to Local Secretaries will, however, contain all the suggestions likely to be needed, and from Mr. Nicholl's character for perseverance and energy, there is no doubt but that he will do justice to the Society's inquiries.

The President observed, that the preparation of instructions for the Local Secretaries of the Society was a matter of considerable importance, which was now under consideration, and when they were completed a copy of the instructions would be forwarded to Mr. Nicholls, and would no doubt give him the information he required.

Mr. Bollaert read the following paper communicated by Dr. Hyde Clarke:—

Notes on the People inhabiting Moravian Wallachia. By Hyde Clarke, Esq., LL.D., Loc. Sec. A.S.L., President of the Academy of Anatolia, Member of the German Asiatic Society, Society of Northern Antiquaries, etc.

Several of the races in Turkey are much distributed, and the Wallachians constitute a well-marked example. In the Roumelian border they are found mixed in groups and spots with Albanians, Slaves, etc.,

and they penetrate among the Magyars and Slavonians. When in Wallachia I heard some interesting traits of the way in which a community of feeling and intercourse is kept up among the scattered members, and the way in which this distribution affects the various dialects.

My attention has been called to the publication by M. D. P. Martziano in Wallachian, of an article on Moravian Wallachia, which, however, I cannot here procure, but of which there is a long notice in the *Journal of Constantinople*. As the *Bucimal* and the *Journal* are equally inaccessible to English readers, I have thought some account may be desirable.

Wallachian Moravia or Moravian Wallachia is a district in the east of Moravia among the mountains in the head-waters of the Lubina, a feeder of the Oder, and of the Beciva, a feeder of the Morava, and so of the Black Sea. The population is about 50,000 or 60,000, and the chief town is Roznau, with 3,000 inhabitants, a bathing place. Walachish Mezeritsch is a small town.

The people are recognised by the Moravians as belonging to an alien race, but they speak Slavonic. Their classification has not yet been decided. M. Martziano having gone to Roznau for the benefit of his health, was struck by the appearance of being among a Wallachian people, and he has applied himself to study their relations.

Of the history of the people nothing is known. In his attempts to determine the classification by the philological method, he appears to have been baffled ; for, notwithstanding a determined analysis of the local dialect, he has not been able to bring forward any evidence against its Slavonic character. He therefore applied himself to physical characteristics, and he affirms that these are distinctly Wallachian, particularly in the beauty of the women. He has further applied himself to the race features, and upon these he greatly relies as confirmatory of a Wallachian type. As to what he says of the pronunciation being more melodious than is usual among Slaves, this appears to be of very doubtful value. He affirms that the popular legends and songs confirm, but of this we do not as yet know the evidence. He says their habits and clothing are distinctly recognisable ; and this last feature really marks the Wallachians. Their mode of feeding and habits generally he identified, and he observed a particular antipathy towards the Slaves. What he strongly relies upon, however, must command the attention of all who know Wallachia, and that is what is euphuistically described as the little taste the women have for sacrificing to Vesta. This must be acknowledged as a striking evidence of identity.

With regard to this characteristic it may be observed, that late advices represent the Wallachian *coup d'état* government as about to restrict the licence of divorce with a view of purifying the country, a measure of questionable morality, as it may break down the last barrier of decency, for it is believed there may be women in Wallachia who are satisfied with only so many husbands as the liberty of divorce affords them, and such moderation could no longer be legitimately gratified.

On the motion of the PRESIDENT the thanks of the Society were voted to Dr. Clarke.

Mr. CARTER BLAKE read the following letter from Gaboon:—

"Gaboon, October 2, 1865.

"MY DEAR SIR,—As a ship sails for Liverpool direct to morrow, I avail myself of the opportunity to forward to the Anthropological Society a Fan shield and nine Fan spears, which my agent in Liverpool will send on to you, and which I trust may safely reach you. I had every hope of sending, per same opportunity, the skeleton of an Mpongwe, but, during my absence in search of a gorilla, the bush in which it lay was fired by the people (as is their wont in the dry season) and the skeleton was completely destroyed. However, I trust to have the pleasure of sending you something better in a month's time, as I go away the day after to-morrow on a shooting excursion, during which I hope to pick up something, and afterwards I go to Camma. "Very truly yours,

"R. B. N. WALKER."

Mr. H. J. C. BEAVAN then read a paper: "Notes on the Races inhabiting Spain," which will appear at length in the *Memoirs*.

The paper commenced with a short account of the various races and crosses of races in Spain. The author divided them into four distinct classes; the Spaniards proper, the Basques, the descendants of the Moors, and the Gitanos. The Morescoes (or descendants of the Moors) are to some extent of pure blood, but the great majority of them have intermarried with Spaniards. The next point touched on was the general character of the inhabitants; and here the author quoted remarks from Swinburne, Zamacola, Serviez, and the few other writers who have made the people of Spain their study. A short notice of the Basques and their language followed; and in conclusion the author expressed a hope that we should ere long have better opportunities of studying the anthropology of Spain, especially since the formation of an Anthropological Society at Madrid.

"In concluding these few remarks," he added, "I must express a hope that ere long we may have some really useful and reliable information concerning anthropology in Spain. The field is a new one; it is rich in many ways; and I think, with time and attention, that a large number of facts may be obtained which will be of service to our Society in the prosecution of its studies of the science of man."

The thanks of the meeting having been given to Mr. Beavan for his paper,

Mr. C. CARTER BLAKE read the following communication on the subject from Dr. Charnock:—

Dr. Charnock said,* that to arrive at an accurate knowledge of the peoples of Spain it would be as well to look somewhat into its early history. The earliest inhabitants of the Peninsula appear to have been the Iberians and Celts. At an early period the seaports and

* Printed from Dr. Charnock's MS. by order of the Council.—ED.

mines attracted the Phœnicians and Carthaginians, and the former are said to have founded Cadiz at least 1000 years B.C., and several colonies were afterwards formed upon the sea-coast, not only by them, but also by the Greeks. Many traces of the Phœnicians and Carthaginians are still found in existing local names in Spain; among others, Cartagena, Cordoba, Henares, Malaga, Seville, Soria, Tarragona, Xeres. There are also other names, which, although not of Phœnician or Carthaginian origin, are probably derived from the Hebrew. Among these are Escalona, Maqueda, Noves, and Yepes or Jepes. Spain was next conquered by the Romans after a resistance of two centuries. In the fifth century, the Peninsula was overrun by the Goths, who were, however, driven from most parts of it by the Moors in 711. For more than seven centuries the Christians were engaged in continual warfare with the Moors, from which state the country was delivered by the conquest of Granada, by Ferdinand and Isabella in 1492. This was followed by the pillage and expulsion of the Jews, who had possessed themselves of most of the commercial riches of the country. From the sixteenth century up to 1833 Spain was divided into large provinces, having mostly the title of kingdom, when it was partitioned into forty-eight smaller provinces, except Navarre and the three Basque provinces, which remain unchanged, and possess peculiar privileges. There can be no doubt that many alliances took place between the Moors and the Spaniards, and that some of the best blood of Spain is of Moorish origin. It is in the south especially that the manners and physical characteristics of the people announce their Moorish descent. There is no doubt also that there is a large infusion of Jewish blood. The Valencians are a gay, lively, and agreeable people, and very fond of enjoying themselves. The Murcians, on the other hand, are heavy, gloomy, and indolent. The inhabitants of La Mancha resemble much those of New Castile; they are, however, more serious and gloomy, and are a laborious and very respectable people. It is said that although many nations speak a patois, or half-a-dozen different patois, they are generally able to understand one another, but that such is not the case in Spain. The inhabitants of many English counties would have great difficulty in understanding each other. Compare, for instance, the dialect of Yorkshire with that of Cornwall, and both with that of the west end of London. In Britany the country people speak no other language than the Celtic, and are not understood by the rest of the French people. In Bearn the Basque is spoken; and Normandy, Languedoc, Provence, and the Limousin have their several patois, which are scarcely intelligible beyond their respective provinces; whilst it is almost as difficult for the peasantry of Austria as it is for the French people themselves to understand the German spoken by the Prussians.

According to Larramendi, 1951 Basque words are found in the Spanish, and from it the Greek and Latin have derived many words. Mayans asserts that the Spaniards have only borrowed a few words from the Arabs, whilst Conde thinks the Spanish should be regarded as a dialect of the Arabic. Another writer is of opinion that the

proportion of Teutonic words in the Spanish greatly exceeds those of Moorish origin. It has also been stated that the words of Celtic origin are as numerous as those from the Basque; but that none of these statements are correct will be evident to any one who takes the trouble to compare the Spanish with the other European languages. The ground work of the language is, without doubt, Latin. The next important element is the Arabic, from which it has derived several thousand words. It has also borrowed many words from the Greek and some from the Phœnician, the Hebrew, and the modern European languages; whilst to the Basque, Celtic, and Gothic, the Spanish is indebted for very few words.

The Basques are of middle size, muscular, well made, upright in body, having black hair and a brown skin. They are industrious, passionate, self-opinionated, frank, lively, brave, superstitious, ignorant, and prejudiced in favour of their country. As enemies they are said to be implacable; as friends, faithful. They make bad regular soldiers, and have little respect for authority; nearly all of them consider themselves of noble origin. The best among them are the peasantry, who, if treated with kindness, are generally civil and hospitable. On the whole, we may say that in features, character, and dress, the Basques resemble much the Irish, although they are certainly not of Celtic extraction. Some consider the Basque language a dialect of the Phœnician, and the people to be descendants of a Phœnician colony, established at the foot of the Pyrenees at a very remote period. Balbi in his *Atlas Ethnographique*, places the Basque in the first family of European languages, and classes it with the Celtic. Webster tells us that the Basque or Cantabrian, the Gaelic and the Erse are the purest remains of the ancient Celtic!! Others have gone so far as to assert that there is so little difference between the language of the Basques and that of the Irish, that the two nations find no difficulty in understanding each other in their respective languages. Mayans traces the Basque to the Celtic. Larramendi says it is not only a primitive language, but *the* primitive language; but as Larramendi was either too vain or too obstinate to give any sound opinion on the matter, no attention need be paid to any of his assertions. Indeed, as a rule, Spanish philologists are no more to be trusted than Spanish historians, according to whom nearly every town of Spain was either founded by Tubal Cain, Hercules, or Noah. Others have endeavoured to show that the Basque is derived from one of the African or American languages. In like manner one ethnologist has proved most satisfactorily enough (to himself) that the languages of America are of Hebrew origin. Fancy the Americans crossing Behring's Straits to teach Basque to the early inhabitants of the Peninsula, and the Hebrew nation returning the compliment. Borrow says the Basque abounds with Sanscrit words to such a degree that its surface seems strewn with them, yet it would be wrong to term it a Sanscrit dialect; but Mr. Borrow is not happy in the examples which he has given. After some research, I am disposed to think that most of them are quite accidental, and that nearly all, if not all, the Sanscrit roots found in the Basque have come in through the Greek,

Latin, and derivative languages. After a careful comparison of the Basque with the principal European and Oriental languages, I agree with Mr. Borrow that the language is of Tatar origin. I do not mean to say that it contains many words in common with the Tatar dialects. I speak rather of its grammatical construction, which agrees to a considerable extent with the Magyar, the Georgian, the Finnic, and Lapponic. Among traits common to the Georgian and Basque are the absence of genders in the nouns and of the accusatives in the declension, the existence of the aspirates *kh* and *th*, the enumeration by ten and twenty, the usage of prefixes and affixes. The Basque, like the Finnic and Georgian, has several dialects. In the Basque "I have" is expressed as in the Magyar, the Lapponic, and the Arabic, viz., "it is to me." In the Lapponic the second present is formed like that in the Basque. The Basque has one affinity with the Scandinavian languages. The article, *a* in the singular, *ac* in the plural, is always suffixed to the noun, thus *guizon-a*, the man, pl. *guizon-ac*. In the Scandinavian the definite article, which is *en* in the masculine, *et* in the neuter, is always postponed; thus in Danish *vei-en*, the way, *torv-et*, the market. The Basque is indebted considerably to the Latin and Greek, and especially to the former, for a great many words. In the Dictionary of Chaho, now publishing, considerably more than half the words may be traced to those languages. Among other examples, are dempora from *tempora;* corpitz from *corpus;* gaztelua from *castellum;* cambera from *camera;* pantz from *pantes;* picoa from *ficus;* choil from *solus;* chaboi from *sapo;* lirioa or liliola from *lilium* or λειριον. It has likewise many words from the Hebrew, the Spanish, and some from the modern continental languages, but very few from the Gotho-Teutonic languages and the Celtic. The Basque has three dialects, the Guipuzcoan, the Vizcaino or Biscayan, and the Libourtan. The first is spoken in Guipuzcoa, the second in Vizcaya and Alava, the last in French and Spanish Navarre. They differ from each other considerably. The inhabitants of Guipuzcoa and Biscay understand each other with difficulty; and the same may be said of the people of Alava, of Haute and Basse Navarre, of Labourt, Soule, etc. As a spoken dialect that of Guipuzcoa is reckoned the purest; as a written language the Labourtan has always had the advantage over the others. Notwithstanding what has been asserted to the contrary, with the exception of those provinces of Spain where the Basque is spoken, there are very few local names of Basque origin. Some are to be found in that part of the south of France where the Basque is still used. The language of the Gascons is no doubt to some extent mixed up with Basque; the Gascons having originated from the Basque provinces of Spain. Indeed Basque, Vascon, and Gascon are merely different forms of the same word. Statistics are of the greatest importance in Anthropological science. Perhaps in no country of Europe has the population experienced such fluctuations, and decreased to such an extent, as in Spain. The principal causes by which this has been produced have been attributed to the Moorish invasion; the contagious fevers and plagues which have especially afflicted the southern provinces; the wars between the

Moors and the Christians which raged from the beginning of the ninth to the close of the fifteenth century; the proscription and expulsion of three millions of Jews and Moors; the migrations to America; the neglect of agriculture; the want of detached farms; the effects of a bad government: the depredation of the Barbary corsairs; and the vast number of unmarried clergy and monks.

At the time of the Romans Spain is said to have contained 40,000,000 inhabitants: at the end of the fourteenth century 21,700,800: at the close of the fifteenth century, under Ferdinand and Isabella, 20,000,000; but these are thought to have been overrated, and the more probable estimates are 20,000,000, 16,000,000, and 15,000,000 respectively. In 1688, it was 10,000,000; in 1700, 8,000,000; in 1715, under Philip V, 6,000,000; in 1768, 9,307,804; in 1787 and 1788, 10,143,975. By the census of 1797-98 the population amounted to 10,541,221, but for certain reasons given by Laborde this census is underrated, and it is probable that the population, at this period, exceeded 12,000,000. It will be seen that from the time of the Romans until 1715 the population had been decreasing in the following proportions, viz., until the end of the fourteenth century, 4,000,000; from the close of the fourteenth until the end of the fifteenth century, 1,000,000; from the end of the fifteenth century until 1688, nearly 5,000,000; from 1688 to 1700, 2,000,000; and from 1700 to 1715 also 2,000,000. On the other hand, it increased, from 1715 to 1768, 3,307,804; from 1768 to 1788, 836,171; from 1788 to 1806, upwards of 2,000,000, making a total increase from 1715 until 1806 of above 6,000,000. According to Miñano, the population in 1826 was 13,732,172, which would give an increase since 1715 of 7,732,172. In 1833 the total population was 12,386,841; and in 1845, Madoz estimates it at 15,439,158. According to the census of 1797, says M. Faure, exclusive of about a fourth of the population, composed of persons living wholly on their property, Spain contained 100,000 smugglers, robbers, pirates, and assassins escaped from prisons or garrisons; about 40,000 officers appointed to capture them, and having an understanding with them; nearly 300,000 servants, of whom more than 100,000 were unemployed; 60,000 students, most of whom extorted charity at night, on the pretence of buying books: add to this 100,000 beggars, fed by 60,000 monks at the doors of their convents; at the period referred to, there existed in Spain nearly 600,000 persons who were of no use either in agriculture or the mechanical arts, and who were only calculated to prove dangerous to society. Making these and other necessary deductions, there then remained 964,571 day labourers, 917,197 peasants, 310,739 artisans and manufacturers, and 34,339 merchants, to sustain by their productive exertions 11,000,000 inhabitants. The decay of the Spanish people was no doubt to a considerable extent due to the expulsion of those great civilisers, the Moors. Segovia, in 1525, contained 5,000 families; in 1845 only 2,000. Toledo had formerly 2,000,000 inhabitants; in 1845 only 13,431. At the time of the capture of Seville by Ferdinand, 400,000 Moors marched out of one of its gates. In the seventeenth century the population was

300,000, 130,000 of which were employed in manufactures; its population in 1845 was 84,927. Valencia, according to Escolano, had in 1600 between 500,000 and 600,000 inhabitants; its population in 1845 was 71,013. Before the conquest in 1487, Granada had 400,000 inhabitants; whilst the kingdom, of which it was the capital, although only 30 leagues in breadth by 70 in length, contained 32 large cities, 97 large towns, and 3,000,000 inhabitants. In 1833 its whole population did not exceed 234,789. Under the Moors, Cordova is said to have occupied eight leagues along the banks of the Guadalquivir, and to have contained 600 grand mosques, 3,837 small mosques, 4,300 minarets, 900 public baths, 28 suburbs, 80,455 shops, 213,070 dwelling-houses, and 60,300 palaces. Under Abdelrahman and Almansor it is said to have contained 1,000,000 inhabitants. Its population in 1845 amounted to 41,976. In 1845 Madoz estimates the whole population of Spain at 15,439,158. At the present day great hopes of the regeneration of Spain have been entertained; and if progress is to be judged of by the introduction of railroads and manufactories; by foreign wars; and neglect of the soil, they may be well founded; but if, on the other hand, it is to be determined by the decrease of crime, disease, poverty, lunacy, and mental slavery, perhaps the regeneration of the people may be considered doubtful.

Mr. Bollaert said, that though he had travelled a great deal in Spain he could not add much to the paper, and to the communication from Dr. Charnock. The subject opened new ground to anthropologists with respect to Spain, and he hoped it would lead to further researches. Nearly all that the Spaniards had learnt of their country had been from the French, the Germans and ourselves. The history of the Basques and of the other provinces stretching northwards was involved in great obscurity, and it could scarcely be expected that any light would be thrown on it by the Spaniards, but there were materials from which much might be gathered if thoroughly investigated, and perhaps something valuable might be gained respecting the history of Spain if some persevering Germans would undertake the task.

Dr. Seemann confirmed the opinion of Mr. Bollaert as to the ignorance of the Spaniards of their own country and literature, as an instance of which he stated that they were ignorant of the works of Lope de Vega, who had written 1500 plays, until they were found and brought to light by Mr. Chorley, and he had no doubt that many more works of Spanish authors were to be found if the records were properly examined.

Mr. Marshall said there was one race not much spoken of that was perhaps the most remarkable of any in Spain—the Gitanos. He regretted that the author of the paper had not said more about them. There was formerly a prevailing notion that they came from Egypt, but it was now more generally thought that they came from India. He should like to know Mr. Beavan's opinion on that point, and whether he thought their language was merely a *patois* or was a separate language. For his own part he believed it to be distinct, and that the gypsies ought not to be called a Spanish race. Mr.

Marshall referred, in confirmation of that opinion, to Mr. Borrow's work, *The Gypsies in Spain*, in which he described them as a distinct people with a distinct language. That language, which is quite different from the Spanish, Mr. Borrow said is even spoken by the gypsies in England. Mr. Marshall also referred to the paper read at a former meeting of the Society by Mr. Harris on the Gallinas, in which several customs of that people were mentioned that were similar to those said by Mr. Borrow to pertain to the gypsies.

Mr. BOLLAERT said he had often talked with Mr. Borrow on the subject, and that gentleman was of opinion that the gypsies in Spain were of Asiatic origin; but nothing was positively known of it. The Spaniards call the language of the gypsies *gerigouza* and *germania* or gibberish. Mr. Borrow traced some Sanskrit words in it; and it may be observed that wherever the gypsies settle, their language partakes more or less of the language of the country.

Mr. C. H. CHAMBERS thought that the gypsies of Spain came, probably, directly from Hungary, but that they might have come from India originally. In the fifteenth century, they were spoken of as coming from the Slavonian part of Europe. He inquired whether the gypsies in Spain live in villages, as they do in Hungary, or whether they live in camps?

Dr. SEEMANN observed that the gypsies were to be seen in perfection in Hungary and Bohemia, where there were whole villages of them. When they travelled, they came into towns in waggons of a peculiar construction. They were excellent musicians; and, though they do not know musical notes, they will play any tune after hearing it once or twice.

Mr. BEAVAN, in replying to the remarks on his paper, observed that the want of literature was the greatest drawback in Spain. There were few places where books could be purchased; and in many a large town there was only one shop where any books could be obtained. The principal books the Spaniards read were French novels. The reading of them was a favourite amusement, but of their own authors they knew nothing whatever. With regard to the gypsies, their language was entirely different from the Spanish, but they could most of them speak Spanish. In Spain they did not live under hedges nor in villages, but they lived by themselves in towns. It was their practice to hire a small hovel, and live together in it in a miserable way; and then they proceeded to another town, and did the same. They were seen in the greatest numbers in Granada, where they gained their livelihood by playing music and exhibiting their dances, assisted occasionally by fortune-telling.

Mr. BOLLAERT then read the following communication from Dr. Hyde Clarke,—*On Anthropological Investigations in Smyrna.*

In accepting the local secretaryship in Smyrna, which the Council has conferred upon me, it may be useful to report on the field of investigation in this district. It abounds, indeed, in examples of phenomena connected with the prehistorical and historical period.

Monuments. Our caverns have not been investigated. Within

the last two years, some remarkable caverns in limestone have been found near Ephesus. I have strong reason to believe they are bone caverns, but I have not been able to obtain any investigation. I would strongly recommend this subject to some Fellow of the Society travelling in these parts. A fable, extensively credited by persons who ought to know better, and to be found in print, is, that in the mountains where these are found is a subterranean city, of which the entrance is near Kosboonar.

Cyclopean Cities. In these we are very rich. Within a short distance we have Smyrna, Tantalus, Sipylus, and Negrophæum; showing that in the prehistoric period large cities were thickly clustered. Ephesus and Samos are fine examples. I attribute the Cyclopean class to the Iberian inhabitants of Southern Europe. I have discussed the pre-Hellenic inhabitants of Asia Minor, and assigned them to the Iberians, in a paper before the Academy of Anatolia, and the Ethnological Society, briefly communicated to the British Association at Bath. This portion of W. Von Humboldt's researches is well worthy of prosecution. A list is wanted of Cyclopæan cities.

Rock-cut Monuments. Asia Minor is rich in these, of which we have some in this neighbourhood. The Sesostris must be taken out of the class of Egyptian monuments. I have been for some time engaged on this subject, and have succeeded in obtaining the concurrent opinions of competent authorities, that this sculpture belongs to a class allied to Assyrian. It is probably of still greater antiquity. I hope soon to obtain photographs of the Sesostris, and the Niobe or Cybele. The other monument referred to by Herodotus will, I expect, be found on the well cliffs between Kosboonar and Ephesus. These require close examination.

Tombs of various kinds have been found, but have not been adequately investigated. No skulls have been secured. Many problems as to race may obtain solution from such remains.

Kitchen-Middens or Shell-Mounds. None are known, but must exist. I have pointed out the *oyster-beds* on Mount Pagus, the Ceedle Hill at Smyrna, formerly supposed to be fossil, as belonging to this class. A short description will be found in last year's *Athenæum*. This subject requires further investigation. I trust soon to send specimens to the Society.

Comparative Anthropology. At the present moment we have remains of many races, and in ancient epochs they were also various. The rajah Greeks I consider to be representatives of the Iberian and pre-Hellenic inhabitants. The Hellenic Greeks are supposed by Fallmerayer, Finlay, and myself to be of Albanian and Slavonian descent, and that the Hellenic element was extinguished many centuries ago.

The Armenians are numerous. These are a most interesting people. It is desirable to investigate their relations to the Georgians, and how far the fabulous Armenian history has any real basis of truth in connection with the early empires of Persia. I have been paying some attention to this matter in connection with my researches in the identification of the Caucasian tribes and the Tibetans, in support of

Mr. B. H. Hodgson's researches. The Koords penetrate into these provinces. The same questions arise with regard to them.

My present view is, that the Armenians, the Koords, and the Albanians or Arnaouts, are the three earliest Indo-European races that descended from the main seat of the family, and that the phenomena of their roots and grammar are to be sought partly in Kaukaso-Tibetan influences.

I may observe, parenthetically, that I assign the same influences as operating on the Ossetinians or Trun, and explaining its apparent anomalies, and conciliating the discoveries of Mr. B. H. Hodgson. I consequently doubt how far the Ossetes may be Indo-European, and whether a Kaukaso-Tibetan race may not have accepted an Indo-European language. The Kaukaso-Tibetan influence in Western Asia is an element to be investigated. It is possible that it affects the Lycian question, and the third arrow-headed. I have not been able sufficiently to examine these points.

This country of Anatolia is the main seat of the Ottoman Turks. The ethnological difference between the Osmanli and Turkoman is very great, and cannot be accounted for by the hypothesis of Circassian and Georgian intermixtures. On the question of the supposed extinction of the Osmanli, I have communicated a paper lately to the Statistical Society, in which I express doubts as to the fact, and give some evidence for showing that the supposed extraordinary increase of the Christians is a fallacy, and that for three centuries the local Christian and Jewish populations have been stationary.

The Turkomans, Yuruks, and other wandering and hill tribes, are well deserving of investigation. They are called Kizzilbashes or Shütes, like the Persians; but their Mussulmanism is mixed up with peculiar institutions, bearing a semblance to the modifications of Islam in Syria. They likewise partake of that prevalent idea among Mussulmans, that there is a connection between their institutions and freemasonry. They certainly hold private periodical assemblies, to which initiates only are admitted.

There are many Negroes here, of whom evidence may be obtained as to Eastern and Central Africa. In the city of Aidin there is a woman of the tribe of Nyanyas, or 'men with tails', of the Nile, on whom I published a paper in the *Levant Quarterly Review*, some years ago. Mr. W. Winwood Reade, one of your Council, has given some interesting accounts of the Nyanyas, in his book on Western Africa. I am now endeavouring to obtain a Nyanya vocabulary from this woman, that to be found in philological works being imperfect, and affording no elements for ethnological classification. If I succeed in this purpose, we shall identify the position of the Nyanyas, and perhaps solve an inquiry raised by Mr. W. W. Reade, and by residents on the west coast, as to the connection of the Nyanyas with that district. I hope in time to obtain a photograph of this woman, who is a fine type of the race. The difficulties I have had on this subject are a fair measure of those to be encountered in this country on very simple matters. I have now made four attempts lately to get the vocabulary, without effect. M. Ernest Rénan, the eminent orientalist, who speaks

Arabic, as does the woman, willingly undertook it for me; but, on inquiry in Aidin, he could not find her. It turned out afterwards, he passed her in her usual resort on leaving the city. The same thing happened a fortnight afterwards with another party.

Many examples of mixed races are found here, particularly of Negro mulattoes and Levantines, or the mixture of Europeans with the natives of the country. The latter afford some most beautiful women in the first, and occasionally in the second, generation; but there is undoubted evidence that neither of the mixed races is permanent. It is to be observed, that some of the Levantines pass into Greeks, as is naturally to be expected from a preponderant Greek population. It is curious that, though the Levantine is a cross-breed chiefly among Indo-Europeans, the third and fourth generations produce many of the phenomena of Negro cross-breeds, as seen in the West Indies and South America.

On the subject of *mules*, I may relate that well-informed persons believe that many mules of the ass and cow exist in this country; and two cases have been named to me, which a friend is investigating. One of these alleged cow-mules is at Leidebein, eight miles distant, and we hope to obtain a photograph for transmission to Europe. The mule was in the city a fortnight ago, but we did not succeed.

On the subject of the phenomenon discovered by Count Strzlecki in Tasmania, and termed by me foaling, I have obtained further evidence as to the fact reported by me to the count, namely, that in Spain and South America, when a he-mule touches a mare, she becomes barren to a horse or an ass. In South America, a mule which has done this is immediately shot, as he may render a herd of mares barren. I have ascertained from muleteers here, that it is considered that the contact of a mule with a mare renders her barren.

Upon *hair*, I may observe that light hair is much commoner among the Armenians, who have very black hair, than among the Greeks, with whom the black is not so intense; I have seen negrolike hair among the Greeks, but have not identified with which race of Greeks.

Longevity. We have one alleged case of remarkable longevity in the Turkish quarter, of which I published a note in *Notes and Queries*, and which I have not got here for reference. Generally speaking, among the Turks there are not many cases of alleged centenarians.

Plague. The plague has ceased within the memory of persons now living; but there is no sufficient local cause, as many of the cities remain in the same condition. A subject deserving of investigation, is the occasional depopulation of villages by fever, arising, it is supposed, by a derivation of currents of air, as by cutting down forests, for instance, bringing miasma on a place formerly protected from it.

Transportation of Language. This has taken place at various times within the historical period. The rayah Greeks generally speak Turkish; the Armenians are acquiring a new literary Armenian language, displacing the Turko-Armenian; the Jews are abandoning Spanish for Italian. The Italian language, formerly the general polite language, is being displaced.

Dialects. The Levantine dialects of the European languages are deserving of attention. The Levantine-English or Levantine twang, about six years ago, was confined to about five hundred persons; but the children of the many new comers get quickly affected by it. A child under ten years old will come under its influence in about three months. It consists of a twang, accentuations, and idioms, in reality based on the bad or Smyrno-Greek dialect. I may note, that I observed children lost it in about two months after arrival in England. The English in Ireland and America are commonly longer in acquiring the dialect; and adult males resist better than adult females. The dialect of the neighbouring island of Mytlene, has been published, and I have ascertained from natives, that there is a distinct dialect in each village, which the people say cannot be understood by some of the neighbours. The number of dialects in that small island is by some reckoned at sixty.

The gypsies here may be usefully investigated. On the dialect of the gypsies of Roumelia, Mr. Pospati of Constantinople has published a very valuable memoir, to which I contributed some notes, in the *Levant Quarterly Review.*

Creolism. The effect of change of climate, so remarkable in the case of the English in North America and Australia, producing the physical effects known as Yankeeism, but which I have termed creolism, I have not noticed here. I have not observed that the children of European parentage on both sides, partake of any physical change in the nature of creolism; but the field of observation is restricted, as the number of pure blood is very small. In American and Australian cases, I have known instances of the children of immigrants born in the country, being distinguished by Yankee features from the elder children born in England. Some of the children of immigrants are not affected by creolism, but are wholly of English type.

Such is the field for investigation, but the difficulties of compassing it are great. There is no public spirit, and no zeal. The whole number of scientific inquiries is small, and, like myself, closely engaged, and having no time to devote to systematic inquiry. A small academy we formed, under the name of the Academy of Anatolia, and of which I was the President, has dwindled since its first year; the attempt to form a library has failed, after accumulating two thousand volumes; and the efforts for museums have proved abortive. It is only by aid from without, from travellers or visitors, having time or means to bestow, that results will be gradually obtained.

Thanks were voted to Dr. Hyde Clarke for this communication.

The following communication from Mr. Baines was read by Mr. C. Carter Blake, which was accompanied by objects presented to the Museum illustrative of the matters referred to.

On Certain Implements and Articles of Dress from South Africa. By T. Baines, Esq.

I have much pleasure in presenting to you, as you were kind enough to tell me the Society would value it, a spear or arrow-head of

stone, one of several found by Mr. Bowker's family near a drift (or ford) on the Fish River in the eastern province of the Cape Colony.

They were found (mingled I believe with fragments of pottery) thirteen feet below the surface of the soil, and are the first stone weapons known to have been found in Southern Africa. No one suspected the natives of having ever known the use of them, nor are there any traditions among the existing tribes that such were ever known to their ancestors. The Kafirs, Zulus, the various tribes of Bechuanas, the Damaras and the Ovampo all use iron spears or assegais, either for stabbing or as missiles; and nearly all, more especially the Ovampo (who for a long time supplied their less ingenious neighbours the Damaras) show considerable skill in smelting out the iron and forging them.

The Hottentots and Bushmen, beside the assegai, use arrows, the heads of which are also sometimes of iron but more frequently of bone, either rounded or neatly barbed, and tipped with deadly poison; sometimes obtained from herbs or bulbous roots, and sometimes from the entrails of a small grub, called 'kaa or ngwa; but I know of no tradition of stone weapons among them, nor have I met in the early Dutch records with any mention of such implements. I would carefully avoid expressing any premature opinion, but I cannot help thinking—and in that I believe Mr. Layard and others coincide—that these weapons indicate the existence of tribes which, with their peculiar customs must have passed away long before Europeans became acquainted with this part of Africa. This specimen was given me by Edwin Layard, Esq., Curator of the Museum in Cape Town, who showed me several others, none of which admitted of any doubt that they were artificially formed as weapons of chase or warfare.

It is hardly necessary to do more than refer to the extensive collections of the Society, to shew that these as well as others used in various countries could not be accidental fragments, but must have been the result of human labour skilfully applied to produce the desired form. Still, as I think it has been mentioned that the great number of fragments found in one spot militates against the idea that they could have been manufactured by a few rude savages, I will trespass so far upon your time as to describe what I have seen bearing upon the subject in North Australia, where stone spears and axes are still commonly used by the natives whose numbers scattered over the immense districts they occupy are so scanty that I do not think we ever saw more than twenty or thirty together at one time.

In many places while ascending the Victoria River with the expedition commanded by Augustus Charles Gregory, Esq., in the years 1855-6, we found fragments of almost any shape, so that they were but thin and sharp-edged. These seemed to have been used as knives for skinning or dividing such game as the natives were fortunate enough to kill; and as we advanced, spear-heads which had been accidently dropped were more frequently picked up. I have no notes or specimens by me at present and write only from memory, but many of these seemed to be of rough jasper and other stones, and the best of them of flint or agate.

On one occasion, while exploring one of the tributary streams of the Victoria River, we came upon an open space between the cliffs, which perhaps for one or two hundred yards each way was more or less thickly strewn with fragments of various stones, and imperfectly-formed weapons. The mode of formation, as was evident from the materials strewed around, as well as from the explanation given by Mr. Gregory, was this. The native having chosen a pebble of agate, flint, or other suitable stone, perhaps as large as an ostrich egg, sits down before a larger block on which he strikes it so as to detach from the end a piece, leaving a flattened base for his subsequent operations. Then, holding the pebble with its base downwards, he again strikes so as to split off a piece as thin and broad as possible, tapering upward in an oval or leaf-like form, and sharp and thin at the edges. His next object is to strike off another piece nearly similar, so close as to leave a projecting angle on the stone, as sharp, straight, and perpendicular as possible. Then again taking the pebble carefully in his hand he aims the decisive blow, which if he is successful splits off another piece with the angle running straight up its centre as a mid-rib, and the two edges sharp, clear, and equal spreading slightly from the base, and again narrowing till they meet the mid rib in a keen and taper point. If he has done this well he possesses a perfect weapon, but at least three chips must have been formed in making it, and it seemed highly probable, from the number of imperfect heads that lay about, that the failures far outnumbered the successful results.

In the making of tomahawks or axes, in which a darker green stone is generally used, great numbers of failures must ensue, and in these another operation seemed necessary, for we saw upon the rocks several places where they had been ground, with a great expenditure of labour, to a smooth round edge.

Their cooking places, consisting of small holes in the ground, indicated by the bones that lay around—fish, water tortoise, and in one instance a small alligator, had been made to boil by the immersion of heated stones in the water, did not indicate a great number of natives nor a lengthened sojourn, while the fragments of stone lay very thickly over considerable portions of the space.

Malay Wooden Sandal, Cape Town.—The word Malay, though originally applied to the slaves brought by the Dutch from Batavia and their other possessions in the East Indies, has now ceased to imply any distinctive nationality, but is applied to all persons of whatever country who have joined them and embraced the Mohammedan religion. Their priests, many of whom have made the pilgrimage to Mecca, wear the turban and long flowing robes, but the chief distinction in the dress of the rest of the community is that the men have their heads shaved and wear a handkerchief of the Malay pattern—a red crossed with stripes of yellow and other colours—bound tightly round the head, and over this a large conical hat of straw, nearly similar to those now in use in the Indian Islands ; the women, on the contrary, seldom wear any head-dress, but their own black hair, glossy with cocoanut oil, and gathered behind round an arrow of

whatever metal the wearer can afford. Sometimes European shoes are worn, and sometimes wooden sandals like the specimen. The projecting knob in front is grasped between the great toe and the next, and the sandal is easily dropped from the foot when the wearer enters a house, or taken up again on going out.

Damara Sandal.—The Damaras, an interesting race, rather more allied to the Negro than the Kafir, are supposed to have emigrated from the Zambesi below the Victoria Falls to the west coast, somewhat less than a century ago. They were very rich in cattle and fought desperately with many of the tribes in their way, until the Namaqua Hottentots, unable to stand before them, sought the assistance of Jonker Africaner, son of the Christian Africaner mentioned by Moffat, who with his tribe had fled from the colony some years before. Jonker's people possessing horses and firearms, not only repelled the stream of Damara emigration, but settled themselves in the country, and for many years plundered the Damaras of their cattle and committed many acts of barbarity, in which they were assisted by a Damara chief who had joined them against his own country people. At the time of my residence in the country from 1861 to 1864, the Damaras rebelled against their oppressors, and assisted by Mr. C. J. Andersson, Mr. F. Green, and some Englishmen, whose sympathy was naturally on the side of liberty, were carrying on a warfare, in which they have been so far successful as to have been the victors in three engagements, and will probably, if they continue so, become one of the most powerful tribes of South West Africa. The Rhenish Society has an extensive mission there, the numerous stations of which are under the superintendence of the Rev. C. H. Hahn, a man whose energetic character and long acquaintance with the native character render him eminently fitted for the service of consolidating the hitherto scattered power of such a people, and it is to be hoped he may be able to reclaim them from the barbarous habits in which they are as capable of indulging as their former oppressors. The dress of the Damaras is almost entirely composed of skins either of the ox or goat—that of the men consists of a belt composed of sixty or eighty fathoms of leather thong worn like a coil of small rope round the hips, with a soft skin passing between the legs and tucked into the belt before and behind; their woolly hair is pulled out into strands three inches or so in length, matted with red clay, parted in the middle, and worn hanging down on either side, with a cockle-shell as an ornament where the hair parts above the forehead; their ornaments are generally rings, either of iron or copper, worn on the arms and ancles, and their weapons, the broad-bladed spear and bow and arrows, considerably larger than those used by the Bushmen. The women wear a peculiar cap or helmet made of stout ox hide, with three ears of the same, one on each side and one behind; a curtain of soft skin is attached to the front, but is almost always rolled up over the forehead with the ends hanging down on either side. From the after part depends a broad fall, composed of short tubes of iron strung on leather thongs reaching to the waist, and terminated by a short fringe. The younger women are not privileged to wear this, it being

the exclusive right of those who are married, and no offence against Damara etiquette can be compared with that of being seen without the bonnet. The younger girls wear a fringe of leather thongs, more or less scanty, according to the size of the skin it happens to be composed of, and as they grow older a kilt or short skirt of the same material is added, and if they can afford it a belt composed of pieces of ostrich egg-shell carefully rounded to about the size of a shirt button, and strung upon thongs of leather ; row after row is added, and the belt increases in breadth till I have seen it reaching from below the waist nearly half way down the thigh ; in this case it is very valuable, and serves as a medium of exchange to the owner, who at times will cut off portions and barter them for whatever she wishes to purchase. Rings of iron are their general ornaments, but formerly they were accustomed to wear them of copper nearly an inch thick, and weighing several pounds each, but these are now seldom seen, and indeed were frequently a temptation to plunderers, who did not hesitate to cut off the hands and feet of the unfortunate wearers to obtain possession of the ornaments. The mantle is made of softened ox-skin with the hair on, and frequently with a long strip pendent from the shoulder, ornamented with iron beads in various patterns ; anklets or gaiters are made of iron beads strung on thin leather thongs, and the sandals, both of men and women, are made of untanned hide, softened by beating or rubbing ; they are pointed before and behind, and are generally nearly two inches longer than the foot each way. The sandal before the Society is one of a pair made for me by a man who thought I wanted to wear them myself, and could not understand that I wished them strictly as a specimen of the native dress, it is therefore much smaller than usual. Some of the native sandals being nearly eighteen inches long, with the points projecting at least two inches beyond the toe and heel, the first thong comes up between the great toe and the next, joining another which forms a loop passing round the heel, and confined about the middle by another thong passing through the sandal and coming up on either side of the foot. The sole is of eland's skin and the thongs of koodoo, which is also extensively used among the colonists for vel schoens, lashes of waggon whips, and other purposes.

Bechuana Sandal, and Cheeka or man's dress, from the Bataoana (or little lions) at Lake Ngami.—The Bechuanas differ in custom and dress from the Damaras, being rather more assimilated to the Kafir than to the Negro, many of their words bearing great resemblance to the Kafir language. Their hair is short and crisp, and is worn close to the head, ornamented sometimes with the round tufts of black ostrich feathers. The only article of dress absolutely essential is the cheeka or loin skin. A belt of any kind is tied round the hips, and the cheeka—a three-cornered piece of goat or antelope skin carefully softened, is put on by tucking two of the corners into the belt on either side the hips, then passing the third between the legs, bringing it up and tucking it into the belt behind. This is worn also by the Bushmen, who sometimes, in bringing up the after end, neglect to hitch it in the belt, and let it retain its place by mere muscular

action, in which case it looks exactly like a tail, and probably might have given rise to some of the reports of tailed men that have been seen in Africa.

The arms of the Bechuanas are the assegai or light spear, of which they usually carry three, the battle-axe, and shield of ox-hide, but many of them now abandon these for the musket. Their ornaments are more generally of beads or brass rings purchased from traders; they cultivate large fields of corn upon the bank of the lakes and rivers, and possess numerous herds of a peculiarly long-horned breed of cattle; they are not canoe men, but the tribe living at Lake Ngami have conquered the Makobas of the country, and compel them to perform what service they require on the water. The sandal is of the hide of the blaawe wildebeeste or brindled gnoo, and the thongs of koodoo; it is roughly cut to the shape of the foot, and is similar in form to that worn by the Bushmen. The cheeka is of goat-skin.

The piece of giraffe-skin is such as is usually prepared by the colonial white or coloured hunters for soles of vel schoens. I have seen it so thick that one hunter was cutting out of the piece a pair of soles with heels almost as deep as those of a fashionable boot.

Bushman's fire stick and sucking reed. — Fire is obtained by the Bushmen from two small sticks of light and not very hard wood; a notch is cut in one which is laid down on one of their sandals, and firmly held there between the feet; the pointed end of the other is then placed in the notch and whirled round between the hands with a downward pressure until they gradually reach the lower part of the stick, another man is then ready to place his hands at the top and continue the motion, until he is in turn relieved by the first; in less than a minute small wood dust is collected, the notch becomes charred, and in little more than a minute the dust is ignited. Dry grass rubbed small is then carefully applied, and the fire collected in it soon fanned into a flame. The power of striking a spark at once from a flint and steel appears to them marvellous, although within the reach of human skill, and a Dutch tinder-box is therefore coveted as a most desirable possession; but that of drawing fire from the sun by a burning-glass, or obtaining it by rubbing a lucifer match, seems at present to be regarded as some peculiar privilege of the white man which is not intended for them. The sucking reed is used in places where the sand is moist, but not sufficiently so to allow water to collect for drinking purposes. The end is enveloped in a wisp of grass, a hole is scraped in the wet sand, which is then again heaped round it, and whatever moisture filters through is thus made available for drinking purposes. It is also used when from the position of the water it may be inconvenient to drink in the usual manner.

The cap of plaited palm leaf is from the other side of the continent, being such as is usually made by the natives in the Portuguese possessions near the mouth of the Zambesi, and worn by the white and half-caste inhabitants, it is not therefore to be regarded as a specimen of strictly native manufacture, but as that of those who are living in serfdom or a mild form of slavery under the Portuguese, and many of whom have been instructed to work as goldsmiths, boat-builders, and at various other trades.

The PRESIDENT proposed that the thanks of the Society be given to Mr. Baines for his communication and for the interesting specimens he had presented to their Museum. He had promised to attend at an early meeting of the Society and to exhibit a collection of sketches taken during his travels in Africa.

Dr. SEEMANN observed that the fire-sticks exhibited were similar to those used by savages in other parts of the world. They consisted of a soft piece of wood and a piece of hard wood, and the heat produced by rubbing them together ignited the powder rubbed from the soft wood, which was then blown into a flame. It appeared from Mr. Baines's communication, that in Africa two men were required to produce fire in that manner, but among the Esquimaux one man obtained fire by that means. It required great dexterity to do it and he had never succeeded, but Mr. Pritchard had.

Major OWEN remarked that the wooden sandal exhibited had apparently come from India. Sandals of that kind were very common at Calcutta.

The PRESIDENT said a letter had been received from Mr. George M'Henry, a Fellow of the Society, and a Member of the Historical Society of Pennsylvania, correcting a misrepresentation in the Queen's Speech on the opening of Parliament that day. As the letter had only been received that evening it could not be submitted to the Council in the usual manner, and as it would be somewhat irregular, therefore, to read it, he submitted the question to the meeting.

The question whether the letter should be read was put to the meeting and was carried.

Mr. BEAVAN then read the letter as follows :—

"Paddington, Feb. 6, 1866.

"SIR,—The truths of history and the facts of science oftentimes bear so close a relationship that I, as a Member of the Historical Society of Pennsylvania and a Fellow of the Anthropological Society of London, cannot refrain from criticising to you some remarks made in the Royal Speech to-day. Her Majesty is reputed to have said, in the paragraph referring to the United States, that 'The abolition of slavery is an event calling forth the cordial sympathies and congratulations of this country, which has always been *foremost* in showing its abhorrence of an *institution* repugnant to every feeling of justice and humanity.' Not being an Englishman I have nothing whatever to do with the 'cordial sympathies and congratulations of this country' in the matter of emancipation, nor do I desire that my native state, Pennsylvania, should have any credit for abolishing slavery after that 'institution', as the Queen is graciously pleased to call it, became unprofitable; but certain it is, that under the influence of the Quakers, Pennsylvania was not only the 'foremost' state to agitate freedom for the Negro, but she likewise was 'foremost' in prohibiting the 'institution' to exist within her borders. Her legislature, in 1780, during the revolutionary war, when the consent of the Crown was not required, and when it would have been refused had it been needed, passed the following enactment :—

"'All persons, as well Negroes and Mulattos and others, who shall be born within this state, shall not be deemed or considered as servants for life or slaves; and all servitude for life, or slavery of children, in consequence of the slavery of their mothers, in the case of all children born within this state from and after the passing of this act as aforesaid, shall be and is hereby utterly taken away, extinguished, and for ever abolished: provided, however, children born hereafter of slave mothers are to be held to servitude until they are twenty-eight years old.'

"I draw your attention to this matter merely for the purpose of keeping history from being warped. If cotton and rice could have been cultivated in Pennsylvania she would have been a slave state to this day, because, if her productions had been similar to those of the Southern States she would have cast her lot with the Confederates, and in that case the South would have been the more powerful of the two sections of the American union.

"The African slave trade was first temporarily abolished by the Revolutionary Congress of 1774, and then by the several states south of Mason's and Dixon's line. Subsequently all the states, through the Congress under the Constitution of 1789, agreed to discontinue the commerce in 1808. Great Britain abandoned the trade about the same time, though she was very slow, and certainly was not foremost in adopting that policy. "Your obedient servant,

"GEO. MCHENRY.

"A number of the states of the American union, not Massachusetts, abolished slavery long before Great Britain thought of doing so, and if I remember right France was some years in advance of England in the matter.

"To James Hunt, Esq., President A.S.L."

The PRESIDENT observed that Her Majesty was not to blame for the sentiments expressed, and that Earl Russell had not shown much knowledge of anthropology in the manner he had dealt with the Negroes. He must say that such conduct was repugnant to his feelings of justice and humanity, and it would bring great misery on the Negro race. Unless care was taken to correct the measures that were being adopted in Jamaica such outrages would always be taking place.

Mr. BOLLAERT remarked, that their Vice-President, Capt. Burton, had said in a recent work, that the citizens of the United States were always doing what they could to improve the American Indians off the face of the earth, and they seemed now to be doing the same thing with the Negroes.

The PRESIDENT said the Society were doing their duty in correcting historical mistakes relating to the introduction of slavery that might subsequently mislead, and they were indebted to Mr. M'Henry for sending his notice of the Queen's Speech. The President announced that Mr. Pritchard, the Special Commissioner from the Anthropological Society of London to Jamaica to investigate the anthropological causes of the recent insurrection of Negroes in that island, would leave

for Jamaica by the next mail, and that Dr. Seemann, a Vice-President of the Society, would accompany him and assist him in his investigations of the subject. They should, therefore, have a doubly valuable report as to the real causes of the recent insurrection.

The meeting then adjourned.

FEBRUARY 20TH, 1866.

JAMES HUNT, ESQ., PH.D., F.S.A., F.R.S.L., PRESIDENT, IN THE CHAIR.

The minutes of the former meeting were read and confirmed.

The names of the new Fellows elected were announced as under:—Alexander Aria, Esq., 8, Randolph Road, Maida Hill; T. G. Wesley Bennett, Esq., 39, Moorgate Street, E.C.; Arthur B. Harris, Esq., M.D., Falmouth, Cornwall; Richard King, Esq., M.D., F.E.S., 17, Savile Row, Regent Street, W.; James McCrevey, Esq., M.D., Assistant-Surgeon, 66th Regiment, Raglan Barracks, Devonport; Fenwick T. Poole, Esq., 26, Lincoln's Inn Fields; Hugh R. Semper, Esq., 47, York Street, Portman Square.

The following presents were announced to have been received, and the thanks of the Society were given to the donors:—

Laycock, Mind and Brain; Mayhew, London Labour and London Poor (extra volume); Winslow's Journal of Psychological Medicine; Brierre de Boismont, Du Suicide; Des Hallucinations; Lébut, l'Amulette de Pascal; Du Démon de Socrate; Leçon Clinique de Médecine mentale; Prosper Lucas, L'hérédité Naturelle; Fabret, Des Maladies Mentales, or Mental Medicine; Serres, Recherches sur l'Anatomie transcendante (with atlas); Journal of Mental Science (Dr. J. Hillier Blount, F.A.S.L.); Pruner-Bey, Sur les origines Hongroises; Résultats de craniometrie (the author); Covarrúbias's Manifesto on the Affairs of Chile (Charles Blake, Esq.); Möbius, Prof., Anniversary Address (the author); Königliche sachsicher gesellschaft der Wissenschaften (the Society); Schriften der Königlicher physikalisch-öconomische gesellschaft (the Society); P. A. F. Causen, Geodätische untersuchungen (the author).

A Few Remarks on the Bunu Tribe of Central Africa. By T. VALENTINE ROBINS, F.A.S.L., F.R.G.S., F.E.S.*

The boy submitted for your inspection is a native of the Bunu country, which lies at about four days' journey from the British settlement of Lukoja on the Niger, and to the north-west of the confluence in ten degrees north of the equator; he was redeemed from slavery by the late Dr. Baikie, who founded the settlement, and who died at Sierra Leone on his passage to England in 1864. The boy would cost 170,000 cowries, which is the currency there, and is equal

* In illustration of this paper, a boy of the Bunu tribe, a collection of portraits, and numerous articles of manufacture were also exhibited.—ED. J.A.S.L.

to £7 of our money. He is very intelligent, speaks the Hausa, Nufi, Bunu, and Igbirra tongues fluently, and these are not acquired by tuition, but through their unsettled state of life, being frequently sold from one tribe to another. He is a fearless horse-rider, a keen-sighted guide whilst hunting in the jungle, a gentle nurse in sickness, and has proved a faithful honest servant to me during my residence in Central Africa. I think that he is perhaps the first specimen of his tribe ever brought to England. His tribal marks are perhaps the Severe, in the interior at least, as far as I have seen, and are held in great esteem by themselves. The operation must cause great pain, and is generally done in infancy; yet it is customary to mark boys and girls when purchased from another tribe. The operator, generally the "town barber", cuts clean out from the face three long strips of flesh, extending from the crown towards the mouth, and one short line from the side of the nose across the cheek, touching the first perpendicular line, these are intermixed with fine lines placed at different angles; the forehead is also marked with fine lines in the form of the letter X. After cutting out the flesh, the wound is filled in with country medicine or palm oil and soot, which causes the mark when healed to stand out in bold relief on the face. The Bunu are a quiet, inoffensive, intelligent, hard-working people; the men are hunters, farmers, cloth-weavers, and workers in pottery, and have a better knowledge of horses and cattle than the generality of the tribes hereabouts; they give the horses lubi in their drink once a day, which keeps them in splendid condition, but this is discontinued if the animal becomes sick. Lubi is brought from the dry bed of the lakes in the interior in large slabs, it tastes like saltpetre, and is commonly used medicinally by the people in their drink. The boys when very little are taught to mount the bare back of a half-tamed horse, and here they hold on with the tenacity of a monkey and the fearlessness of a hunter. Being quite naked, and the head shaved in a variety of styles, gives them a pleasing appearance. Some have the hair cultivated in a ridge on the top running from the forehead down to the base of the skull; others have one or several round patches of hair left, whilst many have none at all. Their weapons are the usual poisoned arrow, long spear and knife, which are very well made by native blacksmiths of country iron; they weave excellent cloth from the thread spun by the women; their clothes are dyed of a deep indigo by being steeped in a preparation of the leaf of the plant; some are coloured red, but generally the red part of the garment is silk woven in a separate piece, and sewn to the cotton. These cloths are very cheap and durable. The women are modest and good-looking, very willing to work, and fond of gay colours; their principal work is to sell the produce of the farm, besides their usual occupations of cooking, carrying water, and reeling cotton thread; they are of a lively and cheerful temperament, and generally sing extempore songs whilst grinding corn—the white man, his saying and doings, his wealth, and kind treatment to them in giving them cloths and provisions often form the subject of the song, and when any witty allusion is made a general shout from all the grinders terminates the verse,

which is taken up by another until all try their powers at composition. They carry heavy loads on their heads, and have the "pickins" tied on to their backs—these women seem to have more affection than some others for their children; yet I have never seen a woman kiss her child, and these endearments are perhaps not practised from the knowledge that they may have to part with their children at any time; and indeed, I have known women offer their children for sale, preferring that the white man should purchase them before any other tribe, because they know from experience that they are better treated. The women and girls live in great fear of being kidnapped. One woman assured me that, when very young, she and a companion were going to fetch water, when some men kidnapped them and hurried them away in canoes down the Niger to the Ebo country to be sold to the cannibals; she fortunately escaped the test for good meat, which is beating the hands violently together until the victim nearly faints, and then thrusting them into hot water; if the hands look red on being taken out of the water, that is a sign of good meat, and purchased accordingly, but if greyish looking the lucky wretch is refused. Now this woman, then a girl, being refused by the cannibals, was sold to a Portuguese slave-dealer, who shipped her off in company with many others on board a vessel in the Bight of Benin, the vessel was captured by one of our cruisers and taken to Sierra Leone, where the poor wretches were liberated. This woman lived there many years, and after all, with her husband and child, managed to return as near to her own country as safety would permit. The Bunu people are both heathens and Mohammedans, and intermarry with the Kakanda and Igbirra tribes, who are both a powerful and warlike people.

The PRESIDENT observed that the meeting were much obliged to Mr. Robins for his communication, and for having taken the trouble to bring for their examination this Negro youth, and the various drawings and other objects, and he was sure they would be anxious to return him their thanks.

The thanks of the meeting were unanimously accorded.

Mr. J. MEYER HARRIS inquired whether the four African languages spoken by the boy were really different languages or merely dialects of the same language. For his own part he had found very slight differences in the languages of the tribes in the West of Africa. With respect to the lubi spoken of it was an article commonly used by the natives for a variety of purposes. The common manner of preparing it was by burning the leaves of the banana. He differed from Mr. Robins as to the use of indigo by the natives of Africa, for there was no real indigo in Africa. The material used for the blue dye was different from indigo. A chemist had been sent from this country for the purpose of procuring indigo from the substance used by the natives, but it was very different. With regard to the alleged cheapness of the manufactured articles, he also differed from Mr. Robins, for in the course of his African experience he had never found any article made by the natives so cheap as it could be supplied from England. As to the apparent want of affection of the women for their

children, it must be borne in mind that their signs of endearment are different from ours, and they do not understand kissing. It was natural that the women should have great affection for their children, every man has a dozen wives, and the children looked only to their mother for care and protection. With regard to the statement about cannibalism and the testing of a woman whether she was fit for food or not, he observed that though it was known that cannibalism existed among some of the African tribes, he never heard of a market for the sale of human flesh for the purpose of being eaten. He was inclined to think the test of slapping the hands had some other meaning, and that it had something to do with a test for supposed witchcraft. He inquired whether the Bunu tribe were accustomed to use bows and arrows, for his experience taught him to consider those tribes who used bows and arrows as more intelligent than those who did not.

Mr. BENDYSHE observed, that as it had been stated by Mr. Robins that the boy could speak English, and sing English songs, it was evident that he was capable of learning different languages.

Dr. BEIGEL said he should like to hear more particulars indicative of the intelligence of the boy. If it were proved that the boy was as intelligent as boys of his age usually are, then it would become a question who his father and his grandfather were, and whether there was any white blood in him.

Mr. C. CARTER BLAKE said he was glad that they had a live negro before them for the purpose of testing the correctness of the rash generalisations as to the equality of the negro and the white man. He believed the boy to be of a negroid race, and that he belonged to those tribes which were called Foullahs on our maps. If they examined the boy it would be found that he, in one respect at least, approached the character of inferior animals. Van der Hoeven was the first to arrive at the generalisation, from an examination of the hands of negroes, that the metacarpals are webbed to a greater degree than those of Europeans. The boy before them was an example of the correctness of that opinion, for it would be seen, on looking between his fingers, that they were more webbed than those of any white person present. Mr. Blake then directed attention to one of the portraits exhibited, in which a very young negro child was represented as gnawing a human femur bone, and commented on the improbability that a child so young could have possessed teeth to obtain food in such a manner.

Mr. MACKENZIE remarked upon the receding lower jaw of the boy. Though the brow and face were well developed, he did not think he looked like a pure negro.

Mr. MILL said he had seen boys in Africa like the one then present. He considered he belonged to the Houssa tribe, which was a pure negro tribe, so far as that tribe were concerned. He had seen one of them who was six feet two inches high. They inhabit a country, the chief town of which is the head centre of Mohammedanism, and where the archives of the town were written in Arabic. The age of the boy he supposed to be about fourteen years.

Mr. ROBINS stated that the boy he believed was only ten years old.

Mr. BAINES said that during a short stay at Sierra Leone he saw a great many varieties of the pure negro (Mandingos), who presented very different characteristics. Some of them were men of fine stature, with features as fine as the boy before them, and who were industrious and useful as sailors.

The PRESIDENT remarked that it was generally admitted that between the ages of ten and fourteen the negroes were nearly equal in mental capacity to the European, therefore it might be expected of the youth before them that he would show signs of intelligence. It might be doubted, however, whether he would be an exception to other negro boys whose intellects seemed to be developed after attaining the age of fourteen. He should like to know whether there was any evidence of there being Arab blood in the boy's veins.

Mr. ROBINS, in replying to the remarks on his paper, said that the boy speaks four different tongues, the only one of which that was written was the Houssa. The languages were so different that those who belonged to one tribe could not understand either of the others. The lubi was brought to the Bunu tribe in thick slabs, four of which make a load for a donkey. It was taken from lake Tchad and brought to the Houssa country. The mother of the boy was a convert to Christianity, and he believed her story about cannibalism. With respect to the blue dye, the plant from which it was procured was, he believed, the same as the indigo plant—at least it appeared to be the same. With respect to the father of the boy, he himself did not know who was his father. He was purchased by Dr. Baikie, and was not a Houssah boy. That tribe do not mark themselves, for they consider themselves above such practices. The boy was not more intelligent than other boys of his tribe.

Mr. L. O. PIKE read a paper—*On the Psychical Characteristics of the English People*—which will appear at length in the *Memoirs*. He began by explaining that in this paper he dealt only with one branch of the evidence bearing upon the origin of the English, the whole of which evidence would be given in his work *The English and their Origin*. He adopted Professor Bain's division of psychical phenomena. He treated first of the muscular feelings and movements, the consideration of which led him to point out certain differences of will or energy in different peoples. He then passed on to the characteristic emotions of different nations, and from them to the different intellectual characteristics. He compared together four peoples, the ancient Britons, ancient Greeks, the modern Germans, and the English. The English character, he said, resembled the Greek character, and differed widely from that of the Germans. He gave evidence to show that the English deserve their reputation for love of athletic sports, and that the characteristic appeared to be inherited from pre-Roman, not from German, ancestors. The chief emotional characteristic of the Germans, he believed to be wonder, which he traced in certain peculiarities of their language, in their literature, in the different branches of their art, and their science. The English did not appear to him to be equally prone to that emotion, or to have so great a love for it. They, on the contrary,

were remarkable for modesty, for delicate self-respect, for the sense of individual responsibility. Following out the divisions of the intellect made by Mr. Bain, Mr. Pike maintained that the English had greater constructive power, and greater power of perceiving resemblances, with less power of redintegration—of elaborating details —than the Germans.

Dr. CHARNOCK said he had never heard a greater panegyric on the English, or a greater libel on foreigners. He then proceeded to comment *seriatim* on the principal points in the paper. According to its author, in *England*, men and women were generally modest, and men generally honourable. Now, if Englishmen were generally modest, he could not understand how they made such way in the world. He had travelled over the whole of Europe, and was disposed to think that continental nations were quite as honourable and quite as modest as the people of England. To be sure, in the "present age of progress," as it was called, there was not too much of either virtue, but was not that a reason why the English should not appropriate the whole of it to themselves. Mr. Pike had referred to the moral and intellectual character of English statesmen. Dr. Charnock trusted the author of the paper did not include the present century; for if he were asked to symbolize the character of English statesmen during the last fifty years, he should do it under the terms Machiavelism, Mephistophelism, Jesuitry, Bedlam. The last stage was Bedlam. We were told that England was great in inventions, but that Germany and Holland were not so. Now it was notorious that the English were not great in this department, but that they displayed great tact in utilizing the inventions of foreigners. All the most important inventions had originated in Germany, Italy, Holland, etc. Witness printing, gunpowder, watches, clocks, the barometer and thermometer, the voltaic battery, galvanism. That the English have been great in the drama was indubitable, but Germany had produced many respectable dramatists besides those mentioned by the author of the paper. There were Hippel, Gotter, Stolberg, Zeidlitz, Von Kleist, Friedrich Müller, and Kotzebue. Could the question be decided by number, the Germans would be the greatest dramatists in Europe, the *Pocket-book of Comedians*, published by Lambert in the year 1823, containing the names of no less than two hundred and eighty-seven living German dramatists. The author of the paper asserted that the English were the best horsemen in the world, but he would seem to have ignored the natives of South America and the Arabs. Mr. Pike had referred to the minuteness of the old Dutch school of painting, but he said nothing of the pre-Raphaelite school now in vogue, which, if anything, was still worse than the Dutch school. According to Mr. Pike's theory, the English must be closely allied to the Hungarians, the Turks, and the Spaniards, for it could not be doubted that the English are among the proudest people of Europe. In England it was said that little children were always on the move, therefore the English must be of gipsy origin. If indeed the English people were of Celtic

origin, it was strange that out of eighty thousand English words not more than forty could be traced to the Celtic languages. The base of our language was Saxon, but the majority of the words might be traced to the Latin and Greek, both of which languages had their root in the Sanskrit and Phœnician.

Dr. SEEMANN observed that one of the reasons assigned by Mr. Pike why the English were not descended from the Germans was that they had forgotten the use of the fist. But they have not forgotten it, and if Mr. Pike were to express in Germany the opinions he had expressed that evening, he would have practical experience of the fact. The use of the fist was known in Germany in primitive ages, and the language makes numerous allusions to it. With regard to the use of wheels, he remarked that chariots and waggons were known to the ancient Germans; therefore it must be assumed they knew at that time the use of wheels. The author of the paper seemed to have founded his observations respecting the love of the Germans for anything wonderful on a misappreciation of the meaning of the term. It was used in Germany, not to signify anything really wonderful, but in the same sense that the word remarkable is used in England. But even supposing that the Germans did often express wonder, it was rather an indication of superior intellect than the reverse. It was only intellectual and civilised people who wonder at anything; savages do not wonder. With respect to the drama it might be adduced as evidence of the dramatic power of the Germans that there was not a theatre in London in which German plays were not continually performed, of which the plays of *Leah*, the *Stranger*, and *Pizarro* were instances. As to music, German music was now so much liked in this country that it was needless to make any remark on the incorrectness of the statement in that respect. It was true that the Germans do not value melody so much as harmony. It was only childish people who preferred melody; those who know what music really is, prefer harmony. Then, as to Germans not being colonists, he referred, in contradiction, to that part of the paper to South Australia and to the United States, which were, to a large extent, occupied by German emigrants. The chief fault that he found with the paper was that it overstrained the reality.

The Rev. DUNBAR HEATH said his objections to the paper were more fundamental than those of the preceding speakers. He did not think it was a scientific paper. It was about three nations; the Greeks, as they were known three thousand years ago; the Germans, as known from the time of Tacitus; and the English, from the days of the Heptarchy. Now, the character of a people was always varying. The Greeks of Athens and of Lacedæmon, for instance, were very different from each other; the Greeks occupied three-fourths of Asia Minor; they abounded in the South of Italy and in Sicily, and in each country they exhibited different characteristics. They could not be taken as unity; there were indeed fifty elements in every character; each one was different from the other. The Greeks of different periods of history, also, differed in those characters, those of the days of Homer being different from the more modern Greeks.

It was the same with the Germans; some of the German tribes and nations were very different from others. Those who invaded England came principally from Heidelberg and the neighbouring district. Similar differences were observable between the Welsh and English; and he contended that similarity of feelings, habits, and tastes, even if they could be proved, afforded no evidence of the character of a nation. He objected to the selection of certain men as the types of the character of a people who might differ essentially in different parts of the same country. For instance, fifty years ago, a Manchester man and a London man were very different, and which of the two was to be taken as the type of Englishmen? Even each individual alters materially in his principles and his modes of action in the course of his life; therefore the character of a nation must in the course of three thousand years be greatly changed, and it was almost impossible to define what is the distinctive character of any people. That was the principle objection he made to the paper. It attempted to arrive at conclusions from observations of characters that were continually changing, and therefore he contended it was not based on scientific principles. It was interesting and suggestive, but he considered the evidence on which it was attempted to prove a connection between the Greeks and the English was unsatisfactory and delusive.

Dr. BEIGEL agreed with Mr. Heath in thinking that it was not a scientific paper. The author attempted to show that the English were an admirable people, and that there was a connection between them and the ancient Greeks in mental qualities and in the beauty of their persons. It was not necessary to write a book to prove that the English were a great nation; but if any person were to institute a comparison between the beauty of two nations, he would be sure to arrive at the conclusion of giving preference to the nation to which he belonged; for the comparison between the Germans and the English, he thought the author of this paper had adopted the opinions of Mr. Mayhew, who had written a libel on the German people, founded on observations of the lower classes, for he had not had access to good society in Germany. Persons not familiar with the German language were liable to commit many errors in construing the meaning of words, and to that cause he attributed the inference drawn by the author of the paper from the frequent occurrence of the word wonder. That word was not used in Germany in the sense assigned to it in the paper, and similar expressions were as much used in England. As to the word wundersam, on which much stress has been laid, it was an obsolete word not now used in the German language. He hoped that the paper would not appear in any publication connected with the Anthropological Society, for he should be ashamed to see it printed in their proceedings.

The PRESIDENT entirely dissented from the opinion that the paper was not of a scientific character. It treated of one of the most difficult subjects of anthropological science. He thought the author of the paper had dealt with it in a fairly scientific spirit, and the Society were much indebted to him for making this first attempt to grasp

such a difficult subject. He trusted it would be followed by others of a similar character. The paper he hoped would be printed, and if it contained any errors that they would be corrected, and that the subject would be discussed more in detail on some future occasion.

Mr. PIKE, in replying to the remarks on the paper, said he had explained at the beginning that it was only a portion of a larger work, in which a great mass of evidence was given in support of the opinions expressed, and that he had laid it before the Society in that form with great diffidence. There had, indeed, been less said against the paper than he expected. In answer to the objection raised by Dr. Charnock, that only a small number of Celtic words can be found in the English language, he referred to the present state of the language of the Negroes in Jamaica. They speak English not mixed with any African words, and it might, on that account, as well be said that they have no African blood in their veins as that the English are not descended from the pre-Roman Britons, because there are few Celtic words in their language. He would not then enter farther into the philological question, which he had discussed elsewhere. With respect to the objection that the English could not be remarkably modest, or they would not get on so well in the world, he thought it must be obvious to every one except Dr. Charnock that he used the word modesty as a synonym not for bashfulness, but for the sense of decency. Mr. Charnock's list of inventions had been almost entirely taken from Mr. Pike's own list of the inventors produced by various countries. Clock-making was an exception, but its origin was uncertain, and no one could say that the English clock and watch makers were inferior to others. There might be two hundred or twenty thousand German playwrights, but no number of attempts necessarily implied success. In fact, the greater the number of its dramatic failures the less could a nation claim dramatic ability. Mr. Pike repudiated the notion that he had intended to disparage the Germans. His only object was to draw a distinction between them and the English. Dr. Seemann and Dr. Beigel asserted that the Germans did not think anything wonderful when they said it was wonderful; but Mr. Pike had anticipated and answered that objection in his paper. The Germans displayed the physical signs of wonder when they used the word. Then, again, as to the Germans having colonised Australia and the United States, he said it had always been, and still was, his impression that the Germans had emigrated thither after the English had founded the colonies. In reference to the objection of Mr. Heath, that the paper was not of a scientific character, and that no scientific paper could be written on the subject of national characteristics, because there were no national characteristics to be compared, he observed that he had understood it to be one of the aims of that Society to discover the differences between the different races inhabiting the globe. It seemed to him that Mr. Heath, as an officer of the Society, committed self-stultification in raising such an objection. The characteristics of the strongest element in any nation might fairly be considered the national characteristics. He thought it most probable that he had made mistakes in

treating a subject of such magnitude, but he contended that no real errors had yet been pointed out, that the plan he had adopted was scientific, and that the subject could be scientifically treated only by that or some similar method. He had taken a great deal of trouble to arrive at the truth, and had not, as Mr. Heath appeared to have done, taken for granted the first statement he had met with on the subject of the Pelasgians or Phœnicians, and believed it to be history. With regard to Mr. Mayhew's book, on which it had been said he had founded his opinions of the Germans, he had indeed read that among many other works; but his opinions of German character had been formed partly from his own slight acquaintance with the Germans and their literature, but principally from the writings of authors popular among the Germans themselves. He had only further to remark that no one had even attempted to controvert his two leading propositions, the first of which was that the English were psychically very like the ancient Greeks; the second, that the English were psychically very unlike the modern Germans.

The meeting then adjourned.

March 6th, 1866.

T. Bendyshe, Esq., M.A., V.P.A.S.L., in the Chair.

The minutes of the previous meeting were read and confirmed.

The names of the following gentlemen, elected Fellows and Local Secretaries were then read:—Francis Campbell, Esq., M.D., Yarban, New South Wales; Jacob Epstein, Esq., 11, Newgate Street, E.C.; Alexander Colin Fraser, Esq., Colchester; Henry Webster, Esq., 10, Tokenhouse Yard; Major H. C. Grove Morris, R.M.A., H.M.S. *Resistance*, Malta. *Local Secretaries.*—J. Hillier Blount, M.D., Assam; Henry Sewell, Esq., Real del Monte, Mexico.

The Chairman regretted to have to announce the illness of the President, Dr. Hunt, which prevented him from being present. He then directed attention to a large collection of books on the table, which had been presented to the Society by Mr. S. Edwin Collingwood, who had previously made many contributions; and he thought their special thanks should be given to him for the crowning present with which he had enriched the Library of the Society.

The thanks of the meeting having been given to Mr. Collingwood, the following list of presents was read:—Duns, Science and Christian Thought (T. Bendyshe, Esq.); Royal Society of Literature Transactions, vols. i-vii (the Society); British Medical Journal, 1865 (Dr. Ryan Tenison); Skeleton from Milcote, near Stratford-on-Avon (Dr. B. Foster): Catlin, North American Indians; Campbell, Negro Mania; Fleming, Travels in Mandchu Tartary; Freke, Origin of Species; St. John, Four Conquests of England; Burton, City of the Saints; Pim, Gate of the Pacific; W. H. Hoskins, Winter in Upper and Lower Egypt; Burckhardt, Egypt and Nubia; Petherich, Egypt, the Soudan, and Nubia; Kinglake, Invasion of the Crimea; Huish, North-West

Passage ; Mackay, Popular Delusions ; Wingrove Cooke, China and Lower Bengal ; Hone's Ancient Mysteries, and a god (S. Edwin Collingwood, Esq.).

Mr. A. HIGGINS read a paper—*On the Orthographic Projection of the Skull*, of which the following is an abstract.—The paper will appear at length in the *Memoirs*.

After alluding to one of the main obstacles to the progress of craniology, the great difficulty of bringing together such a series of specimens of any particular natural group as would justify general conclusions, the writer proceeded to consider how the scattered specimens preserved in museums might best be rendered generally available for accurate study. He argued that the method of delineation advocated by Professor Lucae in his *Zur Morphologie der Rassenschädel* afforded the best and readiest means yet devised for effecting that desirable object. This method of delineation was the geometrical one, by means of which objects are represented as they actually exist extended in space, so far as this is possible on a plane surface. He exhibited the simple apparatus used by Prof. Lucae and explained how the drawings were taken. The apparatus consisted of a horizontally suspended glass plate, under which the skull was placed, and of an instrument affording a vertical axis of vision moveable upon the plate. The author then replied to the various objections which had been raised to this mode of delineation, the principal one being the assertion that the drawings do not represent things as they appear to the eye and as they alone exist as far as we are concerned. He maintained that they do convey to the mind the same general impressions as an inspection of the solid object, and therefore answer all the purposes of perspective drawings ; and that, in addition, they afford a means of comparing contours and of checking measurements such as no other substitute for the skull itself afforded.

The CHAIRMAN proposed thanks to the author of the paper, and suggested that the discussion of it should be postponed until the next paper was read, which was on a similar subject. He directed attention to some photographs on the table of the negro boy from Bunu who was exhibited at the former meeting, and especially to three photographs of the boy's hands, which showed, in the opinion of some gentlemen, an approximation to a webbed structure.

Mr. WESLEY read a paper—*On the Iconography of the Skull*—which will appear at length in the *Memoirs;* in which he recommended the ordinary perspective method of drawing instead of the geometrical system advocated by Dr. Lucae and Mr. Higgins. He considered that drawings were valuable as standing in the stead of examination of the actual skulls, and that geometrical drawings did not perfectly subserve that end, and, since they do not represent objects as they appear to the eye, are more or less unintelligible. At the same time it did not appear that geometrical drawings would ever supersede tables of measurement. A few remarks followed upon cranial drawings generally—the number of views required, the importance of

uniform positions, etc. The paper concluded by some practical suggestions with regard to the application of photography to craniology.

The CHAIRMAN, in proposing thanks to the author of the paper, said he could not undertake to compare the relative merits of the two systems of delineation described; one of which was adopted by the Germans, and the other had the approval of Professor Huxley, for whom he begged to express the profoundest reverence.

Mr. D. GAY remarked in reference to the objection raised by Mr. Wesley to photographic drawings of the skull, that when the skull is photographed of the full size there is necessarily a great amount of foreshortening, but when the object is placed at a considerable distance there is no inaccuracy in the picture; and then by reversing the instrument a copy can be taken and a picture may be reproduced exactly of the size of life, and perfectly accurate. By that means an outline can be obtained so exact that it will accurately fit when compared with the skull. In reply to a question from the Chairman, Mr. Gay said the photographs of the negro boy were taken by him.

The Rev. D. I. HEATH observed that the papers that had been read described two methods of drawing objects, one of which professed to represent them as they actually are, and the other as they are seen. It appeared to him that something else was wanted. They required a picture which, by the application of certain rules, would enable them to measure the object and ascertain its dimensions. They wanted to know how the various points would look if they were travelling all round the object. If they sliced a skull into fifty slices it was said that the instrument on the table would give accurate representations of the whole, and if it gave ten or twenty different pictures of the same skull with all the plans, that was what was wanted. The orthographic system seemed to him to be the better of the two, for it gave one plan quite accurately without regard to distance, while, according to the other system, the picture of different skulls in order to be accurate must be taken at exactly the same distance from the eye.

Mr. C. CARTER BLAKE said the two excellent papers that had been read were amongst the most important that had been submitted to the Society since its foundation. Mr. Higgins's ingenious arguments had set the orthographic system clearly before them, and he hoped it might be better received here than it had been in Germany. Von Baer had expressed the opinion that "however many measurements may be tabulated they cannot stand in the place of general impressions made by the skull itself examined from various points of view." Professor Busk, the eminent craniologist, adopted the system of perspective drawing by the *camera lucida*. But setting aside the value to be assigned to different authorities on the point, abandoning the *argumentum ad verecundiam* for the *argumentum ad rem*, the question was: is the orthographic system right in itself? He had doubts of it. Professor Lucae, in his work, *Zur Architectur der Rassenschädel*, exhibited drawings taken from that instrument which were of an exceedingly rough character, even apparently inaccurate, and did not

allow of any comparison with the skull. The next paper of Mr. Wesley referred to some points of great philosophic importance with respect to the exact position in which the skull should be placed. He had stated that with one or two exceptions all fixed lines were more or less arbitrary, except a line along the basicranial axis from the foramen magnum to the ethmoid bone. That statement was true in the present state of knowledge—at least in England. Professor Welcker, however, had laid down rules by which this basicranial axis may be roughly estimated on the outside of the skull. He took a line from the tip of the mastoid to the forward part of the external angular process of the frontal, and this roughly corresponded with the basicranial line. Why two lines that had no apparent connection should so frequently agree he could not tell, but as that method afforded the means of attaining a fixed line, it was convenient it should be used. After some further remarks on that part of Mr. Wesley's paper, in which he urged the necessity of having some fixed vertical or base line adopted to regulate the position of the skull when drawn, Mr. Blake proceeded to notice the concluding observations in reference to photography. He thought Mr. Wesley was rather too hard on photographers. All his own experience of photographers, especially those who were members of the Anthropological Society, had shown him that they were able to tell him more about the correct method of representing a skull than he had been able to tell them. But photography was not applicable to that purpose in many instances, for the colour sometimes rendered the delineations obscure. He should have to show, later in the evening, a skull from Louth, which it would be useless to photograph, for the sutures were so faintly marked that they would not be distinguished by that process of drawing. If such a skull was to be illustrated, he should prefer to have it depicted by the simple perspective method of drawing, such as his friend Mr. Wesley had adopted in the delineation of some skulls Mr. Blake had had the honour to describe before the Society.

Mr. H. Brookes said they had had two very able papers read, and some very able speeches about them, but he could not understand from them what the object was they had in view. He wanted to know why, and for what purpose, the skull was to be measured? They had had one or two indications of the right method of measuring, but they should first ascertain why they measured the skull at all. If it were only to obtain so many lengths and dimensions they would be as wise at the end of their investigations as at the beginning. But if they had any definite object they might advance science by adopting the best methods. The only object he could conceive of measurement was to ascertain the contents of the skull, and the condition of those contents relatively to some central point, or to some other skulls. There was no use in blinking the question, that the mere knowledge of anatomy would not give any information as to the uses of the human system. The functions of the brain must be obtained by phrenological observations. They might assist phrenology by these measurements of the skull, but they could not thereby ascertain the formation of the brain. What was wanted was, to ascertain

the functions of the brain, which could not be done by measurements, though such measurements might be useful guides. He should be glad if their anatomical friends would give some information as to the first formation of the skull and the first portions of brain, and of the manner in which those portions are gradually developed in the embryo of man and of various classes of animals. In that way they might obtain knowledge of the functions of the brain, and ascertain the best method of making the measurements of the skull. He considered the base of the cranial cavity to be the only sure line of measurement.

Mr. J. Fred. Collingwood considered the two papers that had been read stamped that meeting as one of the most scientific that the Society had held. He was surprised that any one could cast a doubt on the usefulness of the means of measurement which had been explained by Mr. Higgins. The apparatus exhibited might be in its arrangements elaborate and clumsy, but those details were capable of improvement. It was the principle of the plan they had to consider, and there was, indeed, nothing new in the mode of delineating objects geometrically. The chief objection to Mr. Wesley's method was, that it depended for its accuracy on the skill of the manipulator. What was wanted was, an universally applicable method of drawing the skull so accurately as to form a scientific record of general utility. Mr. Wesley's method was to supplement his drawings by tables of measurements; but the method described by Mr. Higgins dispensed with tables and was of itself sufficient for scientific purposes. The geometrical method could be easily adopted with practice; it was like learning a new language, the value of which when acquired was at once perceived. Having made many drawings on that plan he was astonished that any one conversant with it should put in competition with it a system of perspective representation.

Mr. G. Dibley observed, in reference to the use of measuring skulls, that the general object was to endeavour to ascertain the capacity of the intellect of the individual, and that it was probable the measurement of skulls might confirm the impressions of physiognomy.

Mr. T. V. Robins said his experience of drawing at the Government Schools of Design in Liverpool, where he had taken at least 4000 drawings, induced him to think that an artist could by free hand-drawing give as faithful a representation of a skull as any measurement made by such a machine as that exhibited by Mr. Higgins.

Mr. Conrad Cox observed that the question before the meeting was not the use of drawings of the skull, but how such drawings could be best made; and the question of use need not be entertained at all. The relation between the capacity of the brain and intellectual power was an interesting consideration, but the question was not then before them. There were several other things besides mental capacity to be considered. There were many different kinds of skulls; there were, for instance, the long, the short, the round, and the rafter forms of skull, and the investigation of those different forms was an interesting study, bearing much on the question of race. The

outlines of the other bones were measured, and why should they not measure those of the skull? They were all parts of our body, and it must be taken for granted that if there were use in measuring the bones of the trunk and limbs, there must be use in measuring the skull. The index of mental capacity such measurements afford was only one part of a great subject.

Mr. Bollaert agreed in thinking that was not the time to go into the question of the relation between the form of the skull and intellectual capacity. In the work of Morton a multiplicity of reasons was given for measuring skulls. That author had examined them in every possible way, and the conclusion at which he first arrived was, that the greater the quantity of brain the greater the amount of intellect. In the latter stages of his researches he became doubtful on that point, and he then proceeded to study the positions of different portions of the brain. It was a question, however, on which they had a great deal to learn, for phrenologists had yet taught them very little. He trusted the Society would produce men who would go into the subject fully, and that important results would follow their researches.

Dr. Langdon H. Down said it would be a great advantage to have one uniform system of measurement, and he thought the Society were much indebted to the gentlemen who had brought the subject under their consideration. In examining skulls he was of opinion they should not limit attention only to their size. The quality of the brain was of more importance than the quantity. One point had hitherto been overlooked, which was the want of symmetry of the cranium which had been observed in some idiots, one side being different from the other.

Mr. H. Brookes explained that he did not object to the measurement of the skull, but he thought that there was a necessity that they should in the first instance ascertain the object they had in view; so that in measuring the skull it should be placed in a position likely to elucidate the facts they wanted to obtain.

Mr. A. Higgins, in replying to the observations made on his paper, said, that he thought he had by anticipation answered in the main the objections urged by Mr. Wesley against the geometrical system of delineation. There were, however, one or two points upon which he would like to enlarge. He had not claimed for geometrical drawings that they represented objects absolutely as they appear to our eyes—nothing but stereoscopic pictures could do that—but what he did maintain was that they did so nearly, as to answer the purpose which Mr. Wesley had himself asserted to be the chief use of drawings in craniology, namely, to convey to the mind the same general impressions as is gathered from an examination of the solid object. As an additional piece of evidence that geometrical drawings do most effectually subserve this purpose, Mr. Higgins stated that Professor Lucae had had a careful geometrical drawing made of a well-known bust of Sömmering, and had shown it to several artists of eminence, none of whom detected that it was not a perspective drawing. Even the sculptor of the bust confessed that he should not have known that

the drawing was geometrical had he not observed that the base lines of the two visible sides of the lower part of the bust made a continuous straight line instead of forming an angle. Mr. Higgins exhibited this drawing to the meeting, and requested the gentlemen present to judge for themselves. He ventured to say they would agree that there was a vivid reality about the geometrical drawing such as even the perspective one did not exhibit. He proceeded to remark that the affording a general idea of the shape of skulls was after all only a secondary object in geometrical drawings of these objects. That object would be gained almost, though not equally, as well by free-hand drawings. The great value of orthographic projections was that by means of them, and by means of them alone, the curves of the contours of various skulls—curves so varying as to defy any mere mathematical treatment — could be compared with one another with wonderful accuracy. This was a point of great value in the examination of large series of skulls of any particular people, as in this way, not only would the mean form be more readily eliminated, but differences of form could be readily appreciated, which no mere cranioscopy, or system of measurements, however elaborate, could possibly detect. Then, too, although geometrical drawings would not dispense with measurements taken on the skull itself, they afforded a most valuable means of checking them, and indeed many important measurements, for instance, those of the facial angle and facial triangle, were more readily taken on the drawing than on the skull. The value of free-hand drawing, and indeed of all perspective drawings, depended greatly upon the representations being all taken at the same distance from the object; but who should persuade artists to adopt one uniform rule on this subject? The difficulty at once disappeared if the geometrical method were adopted, as in that case it makes not the slightest difference if the plane of the drawing be near or far off from the object. Nearly all the objections to ordinary perspective drawings, applied with at least equal force to those taken with the aid of the camera obscura; to say nothing of the fact that many persons can never succeed in using that instrument. The object was so near to the point of sight as to cause a very appreciable distortion. It was impossible to see anything approaching to the outline of a true median plane of a rounded object when viewing it from a single point at a small distance. This was a fact recognised and allowed for even in the case of the heavenly bodies, vast as is their distance from the observer; and accordingly astronomers in their drawings of sun, moon and larger planets, did now actually adopt the geometrical method of delineation. The plan mentioned by Mr. Gay of taking photographs of an object placed at a considerable distance and afterwards enlarging the image was a very valuable, although not a new one. It was a step towards geometrical delineations which represented an object viewed from a very long distance, in fact, an infinite distance. Mr. Blake had cited one of the highest authorities on such a subject, Von Baer, as disapproving of the geometrical system. If Mr. Blake had not misunderstood Von Baer it was a somewhat singular fact that the magnificent plates of that veteran anatomist's compa-

ratively recently published *Crania Selecta*, were geometrical drawings. He (Mr. Higgins) would also venture to cite the name of Dr. Paul Broca, who had himself designed an instrument for giving projections of the skull, and had ably advocated the importance of such projections in his paper "Sur les projections de la tête." As to the rough character of Lucae's drawings in the *Zur Architectur des Menschenschädel*, it was right to say that they were taken many years ago, before Lucae had invented the instrument which had been exhibited that night. Mr. Collingwood had stated, what no one would more readily allow than Dr. Lucae himself, that the instrument exhibited was capable of improvement; and he (Mr. Higgins) might mention that a most important improvement had recently been suggested to him, which although it would considerably increase the cost, would, he believed, remove all the practical objections which could be urged against the instrument. In reference to the question of Mr. Brookes, as to the object of measuring and drawing skulls, Mr. Higgins remarked that the first stage of every science is the classificatory; that skulls present us with a large series of phenomena, amongst others, diversity of form; and that we must, as a first step towards a knowledge of the cause of such diversities, adopt some means of recording and classifying them. If it be asked why we fix upon the skull for our special study, the answer is that there is no other group of bones in the skeleton which presents the same complexity and consequent capacity for exhibiting varieties of form and structure.

Mr. Wesley briefly replied to some of the remarks on his paper; and, referring to the Neanderthal skull, he observed that some of the misapprehensions respecting the condition of its sutures had been founded on an imperfect photograph sent to England by Dr. Fuhlrott.

At the conclusion of the discussion on the two papers, Dr. G. D. Gibb begged to make a remark on the photographs of the hands of the negro boy from Bunu, which had been exhibited, and which had been stated to show indications of his being web-footed. Dr. Gibb said that the photographs did not show anything of the kind, for the hand was in every respect well formed.

Mr. Higgins said that on examining the hands of the boy it would be seen that the loose skin between the knuckles was further down than is usually the case in the hand of a European.

Mr. C. Carter Blake begged to coincide with Mr. Higgins's statement, and reaffirmed the fact which he had laid before the Society.

Mr. C. Carter Blake then read a paper on *Certain Simious Skulls, with especial reference to a Skull from Louth, in Ireland.* (This paper will appear at length in the *Memoirs*, with illustrations.)

The paper gave a minute description of a skull which had been presented to the museum of the Society by Capt. Montgomery Moore, and which exhibited a condition of the sutures closely resembling the conditions in the skull "No. 1029 of Davis," and the skull from the Neanderthal. The sagittal, coronal, and peri-sphenoid sutures were all more or less closed, probably in early life, and Mr. Blake thought that this premature synostosis had been the cause why the brain,

which had to expand under a plate of bone in one solid piece, developed a form of skull of great length, and with a large posterior and small frontal development. Mr. Blake added that he had not subjoined to the paper the usual table of measurements, as he preferred to postpone giving the tables, and to submit a detached comparison of forty or fifty skulls together, according to the plan that had been adopted by M. Pruner-Bey in the Anthropological Society of Paris.

The CHAIRMAN remarked, that after the elaborate papers read that evening, they should return thanks to the authors of them, especially to Mr. Higgins, for having removed the reproach that they were only a semi-scientific Society.

Mr. HIGGINS observed that Professor Huxley had lately impugned the statements made at the meetings of the Society as to the form of the Neanderthal skull having been produced by the premature closing of the sutures, and the interest of the paper just read consisted in its establishing the fact that a similar closing of the sutures, accompanied by a similar form of skull, appeared on the specimen before the meeting. He wished Mr. Blake had compared exactly the contours and dimensions of the two skulls, and had stated in detail the differences as to the closing of the sutures; because we should then have been able to test the premature-synostosis theory by applying to these cases the well-ascertained law that such synostosis hinders the expansion of the skull in the direction at right angles to the suture affected. He failed to see that any evidence had been adduced to show that the closing of the sutures had taken place in early life; and he asked why the peculiarity of form should not be regarded as a race character?

Mr. MACKENZIE said that when Mr. Blake read the same paper at the meeting of the British Association at Birmingham, Dr. Barnard Davis had stated he fully agreed with Mr. Blake in every respect in his remarks on the Neanderthal skull, as reported in the *Transactions* of the Society.

The CHAIRMAN asked whether anything peculiar had been discovered on the skull, and whether it bore any of the monkish characters which were said to mark what had been called "apostles' skulls"?

Mr. C. CARTER BLAKE referred to a paper of Dr. Thurnam, recently published in the *Natural History Review*, in which he gave the measurements of early British skulls, and pointed out the numerous instances of synostosis observed by him. Dr. Davis, in his paper on the subject, observed that they exhibit indications of this peculiar deformation having taken place at an early period of life, and he had reasserted that opinion in a quarto volume since published. To that work he (Mr. Blake) begged to refer; and he expressed the belief that the skull presents a certain abnormal form that had been produced by premature closing of sutures. If the peculiarities were of race character, how was it that so few skulls of that form have been discovered? But M. Pruner-Bey says the

Neanderthal skull belonged to a race of Celts, who are by no means an extinct race; it was therefore far more possible and likely that the abnormal form was produced by the closing of the sutures than that the skull was the "missing link" between man and the lower animals. He considered the Neanderthal skull, as an indication of race, to be "lost, lost, irretrievably lost."

The meeting then adjourned.

March 20th, 1866.

James Hunt, Esq., Ph.D., F.S.A., F.R.S.L., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

The following gentlemen were announced to have been elected fellows and Local Secretaries:—Thomas Wilkinson, Esq., 7, Falkner-street, Liverpool; Joseph Gill, Esq., Lagos, W. Africa; Robinson Hudson, Esq., L.R.C.S., Southampton; Lieut. Wilberforce Clarke, R.E., Stanton Rectory, Winchcombe, Gloucester. *Local Secretary.*—Henry Mills, Esq., F.R.G.S., Abbeokuta, W. Africa.

The donations to the library since the last meeting were announced as under:—Lawrence, Blumenbach; Blumenbach, Abbildungen natur historischer Gegenstände; Gabet, Traité élémentaire de l'homme; Bory de St. Vincent, Essai Zoologique sur le genre humain; Cabanis, Rapports du physique et du moral; Hodgson, Aborigines of India; Lacépède, Histoire Naturelle de l'homme; Tableau naturel des rapports qui existent entre Dieu et l'Univers; Haworth, Anatomy; Stewart, Philosophy of Sense; Williams, Missionary Enterprises in the South Sea Islands; Rivero and Tschudi, Peruvian Antiquities; White, Regular Gradation in Man; Wilson, Missionary Voyage to South Pacific; Forster, Voyage Round the World; Jarrold, Form and Colour of Man; Marsden, History of Sumatra; Lacépède, Ages de la Nature; Camper, Orang-outang; H. Spencer, Principles of Biology; Stuart ü Kuyber, Der Mensch; de Luc, Letters of Geology; Frankenaer, Palingenesia; Reaumur, Art of hatching Fowls; Derham, Physico-Theology; Leslie, Early Races of Scotland; Strauss, Life of Jesus. (The above works presented by T. Bendyshe, Esq., V.P.A.S.L.) Transactions of the Ethnol. Society, vol. iv (the Society); Smithsonian Report, 1864 (the Institution); Eisotheism (the author); Social Science Review (G. A. Hutchison, Esq.); Girdle worn by Mpongwe women (R. B. N. Walker, Esq.); Food, use, and beauty of British Birds (C. O. Groom Napier, Esq.); J. E. Morgan, Esq., Danger of Deterioration of Race (the author); Remarkable Embassies of the East India Company of the United Netherlands to Japan (A. Higgins, Esq.).

Mr. C. Carter Blake directed attention to a collection of skulls on the table, and to some bronze implements which he said Captain Tupper would explain.

Captain A. C. Tupper said: We are indebted to Mr. Layton, jun. (now present) for the exhibition of the specimens upon the table, and I

hope that the members will determine whether these skulls are Roman or British. It is most interesting to remark that the locality in which these human remains are dredged up, together with bronze swords, spear heads, daggers, celts, stone as well as metal, also British pottery (no Samian ware), iron implements, bone hammers, stags' antlers, etc., is the Thames at Kew; all these relics of the olden time having been obtained within one mile of either side of the bridge. Many bronze leaf-shaped swords are met with in the gravel formation at Battersea, where antiquaries suppose a battle must have taken place; the distance between that place and Kew is eight miles by water, and I do not think that an engagement could have been sustained so long for such a distance, as in those early times all that part of the country was marsh and scrub-wood, quite unsuited for a fight. Possibly these skulls may have belonged to those brave men who defended or tried to pass the ford, the river being only a few feet deep at high water; that there was a contention here is evident from one of the crania having two sword cuts upon the left parietal bone. Quantities of human bones are met with by the dredgermen, who have great fear and superstitious dread of such articles, so, whenever a skull or other osseous fragment appears in the buckets, they are at once heaved overboard. I mention this in order that we may fully appreciate Mr. Layton's dexterity in obtaining, and his kindness in submitting this collection to the Society. I conclude these remarks by stating that he is ready to answer any questions as regards locality, but he leaves us to determine the anthropological distinctions of the eleven skulls now before us.

On the motion of the President the thanks of the Society were given to Captain Tupper and Mr. Layton.

Mr. C. Carter Blake said it was only on the previous Saturday that the specimens had been placed in his possession for exhibition at the meeting, and he regretted that he could only offer the result of a cursory examination of them himself. He hoped at some future time to lay before the Society a more accurate explanation than he could now give. There were eleven skulls, two of which were similar to those of Gallo-Roman type derived by our President from St. Acheul. There was another of them, very interesting, as it exhibited a peculiarity of ancient British skulls, and noted by Dr. Thurnam, who had stated that in a large number of those skulls it was observed the sutures had been closed at an early period of life, producing an abnormal form. The skull on the table, to which he referred, was a similar example of the early closing of the sutures, which produced the class of skull called by Thurnam klinocephalic. The skulls generally resembled those of early British, but two were Roman, and one was something like the skulls from the "river beds." One of the skulls was very much marked by sword cuts, but it could not be determined by what kind of implement the cuts had been made, or whether they might have been made by the bronze swords found near the same place, which were certainly Roman. Only four of the skulls presented distinctly identifiable characters at a first glance. Two there

were certainly Roman; one was associated with Celtic skulls in character, and one resembled the river-bed skulls, which might possibly have preceded the "Celtic" race.

At the request of the President, Mr. Layton consented to allow the specimens to remain in the possession of the Society for a short time to allow of their being more carefully examined.

The following paper was then read: *Notice of the Brochs and the so-called Picts' Houses of Orkney.* By GEORGE PETRIE. (This paper will appear at length in the *Memoirs.*)

The author pointed out that besides the ordinary barrows or gravemounds in Orkney, there were many tumuli which were ancient structures, and which were indiscriminately grouped by the natives under the title of Pict's House. Several varieties of these structures were known in Orkney, the author classifying them as "brochs" and as "Picts' houses." The former are circular towers of fifty to seventy feet diameter, and sixteen to seventeen feet high. The circular wall around them forms two concentric walls, with a gallery or passage between them, similar to that found in the Zetland brochs, which are less ruinous than those of Orkney. The nearly perfect broch of Mousa, in Zetland, is upwards of forty feet high. Mr. Petrie described the broch in the Isle of Burray, giving careful measurements of the compartments therein, and containing articles of stone, bone, bronze, and iron, the latter having been probably accidentally introduced. He drew no conclusion as to the age of the broch of Burray; but in the case of the broch of Okstro, in the parish of Birsay, the order of superposition of stone kists belonging to the bronze age, in soil above the ruins of the broch, led to the inference that the broch itself was older than the stone kists found above it. Forty brochs at least were known in Orkney, and these were also to be found in several of the northern counties of Scotland. The Picts' house, on the other hand, is of a conical form, externally resembling a large bowl-shaped barrow. Its masonry is solid, and its entrance is by a long, low, narrow passage, the walls converging to the top; no implements are found in the Picts' houses, but the bones of domestic animals are plentifully found therein. Mr. Petrie considered that the Picts' houses were tombs, or chambered cairns or barrows. He stated his opinion that Maes-howe was a structure of this class, and concluded by pointing out that the discovery of certain uniform characters inscribed on the brochs, the Picts' houses, and the barrows, suggested the idea that they were the remains of the same people.

THE PRESIDENT proposed the thanks of the Society to Mr. Petrie, their zealous and able Local Secretary in the Orkney Islands. The paper was the continuation of a subject that had been brought before the Society by Mr. Laing in which he considered the prehistoric remains of Caithness. A report on the same subject had been made by Mr. Anderson and Mr. Shearer, which he called on Mr. Blake to

read: *Report on Ancient Remains of Caithness.* By JOSEPH ANDERSON, Esq., Loc. Sec. A.S.L. (This paper will appear at length in the *Memoirs.*)

This paper was intended to offer a description of the remains which had been investigated in the county of Caithness by Mr. Anderson and Mr. Robert Innes Shearer, on the part of the Anthropological Society, in the application of a fund which had been described by certain members thereof. The author classified the ancient remains according to the terms used by the country people, who divided them into "grey" and "green" cairns. The former were also known under the title of Picts' cairns, and the latter as Picts' houses. He described in detail the Picts' house at Kettleburn, with its contents of pottery and remains of domestic animals, as well as manufactured objects of bone and stone; the Pict's house at Bowermadden, containing a very large proportion of manufactured articles, amongst which were the carved antlers of deer; the Pict's house at Old Stirkoke, where a large kitchenmidden of gnawn and chipped bones; the grey cairns at Yarhouse, Thrumster, divided into compartments, and showing within it evidence of three sorts of interment; the "chambered long cairns with horns" at Camster, the largest conical cairn in Caithness; the "chambered short cairn with horns" of Ormiegill, near Ulbster; large round cairn at Camster; small cairns enclosing cists; and groups of cists without cairns. He further described the standing stones which are found arranged in a horseshoe-like form at Stemster. Detailed measurements were given of all these structures, and the author concluded by the expression of his belief that the ancient inhabitants of Caithness were not in so barbarous a condition as had been implied by some persons. The specimens illustrative of the paper were presented by the author to the Anthropological Society's Museum.

The PRESIDENT remarked that the report just read was the result of researches undertaken with the aid of a small donation sent from the Society, not, indeed from the general funds, but from the receipts of a subscription contributed by a few members for the purpose. They were much indebted to Mr. Anderson and to Mr. Shearer, who were the most zealous archæologists in the county of Caithness. Mr. Shearer had, indeed, sent a separate paper, in which he expressed a difference of opinion in some respects from Mr. Anderson, which paper he requested Mr. Beavan to read.

"Thrumster Cottage, Wick, N.B., Jan. 26, 1866.

"DEAR SIR.—I herewith send you a rough sketch of a group of standing stones near Yarrows Loch on this estate. The only tradition connected with them is that a battle was fought on the spot, but what battle or by whom fought no one can tell. The story is of no importance, as every similar group in the county has the same tradition attached to them. These stones are disposed in a sort of parallel rows. The rows themselves at unequal distances, but the stones in each row are many of them equidistant from one another, those

nearest to each other being six feet and a half apart, and those furthest seven feet nine inches apart. If you look from the end of the sketch you will see that there are seven rows of these stones, and in the rows you will see many blanks; but though I have left it blank, I still believe that many of the blanks can yet be filled up by digging in the peat which has overgrown nearly all them. Some stones have, however, evidently been removed from idle curiosity, and some for building, as the pits whence they were taken still remain open. The number of stones I have here shown are about one hundred, and I have not omitted one that is visible above the peat. These are much fewer in number than the group visited by yourself and Mr. Anderson at Clyth, and of which I will try to send you a sketch by-and-bye. I also send you a ground plan and section of a cairn we opened at Camster, also a ground plan and section of one opened at Ulbster, and of both of which you will have the particulars from Mr. Anderson's paper when he sends it up. But as I presume the plans and papers sent by Mr. Anderson to be laid before the Society are the property of the Society, I send these for your own use. You will see that the Ulbster cairn is a short one with crescent-shaped ends, whereas those you saw at Yarrow are long cairns with crescent-shaped ends (and in one of which the beads were found), and the difference in length I presume will be found to be the chief difference when they are properly explored. Internally, all the long, short, and round cairns that have yet been opened have a striking similarity both in the shape of the chambers, their number, and the mode of dividing them. My friend Anderson and myself are rather inclined to differ in opinion as to the original intention of these cairns and the value of the remains found in them. I can see nothing in the pieces of broken pottery, burnt and half-burnt bones, and weapons or implements found in the 'floors' of the cairns, but a refuse heap or kitchen-midden on a small scale, and the fact of human bones mixed in the heap does not alter my opinion. We have now opened four cairns this season, and in every one of them there is a 'floor' of about six to nine inches thick, composed almost entirely of ashes, wood charcoal, burnt and half burnt bones of many sizes and kinds, with fragments of pottery (and I hold it to be very important that no vessel of pottery has been found in any of them entire except in one single instance, and that was evidently buried in the 'floor' after it was formed). In the case where this single whole vessel was found, a cist was formed on the *top* to the 'floor' and not into it, and within the cist the vessel was laid about two or three inches under the surface of the 'floor'; and scattered through the whole extent of the mould, within the line of the inside of the cist, the lignite beads were found, but not one outside. In digging out this cist, the 'floor' was found to be of a different consistency from that outside the cist, being much looser and easier removed, and evidently comparatively much more recent than the rest of the same chamber. Then we never found two pieces of pottery in such juxtaposition as imply that they belonged to the same vessel; but on the contrary, the pieces of pottery lying nearest to each other in these 'floors' are of different patterns and different composition,

showing plainly that they were not placed or buried there in an entire state, but thrown among the other refuse when broken and useless. Again, nearly all the human bones we got were on the top of this floor, except it might be some very fragmentary portions, or some teeth that I found in the Ulbster cairn *in* the floor and not *on* it. But this cairn had also human bones on the floor; and in the Camster one, the human bones were found in such apposition among the rubbish and stones over-lying the floor as would lead to the belief that they were originally placed in a sitting position, or else had been disturbed previously to our finding them; however, we had no evidence that that part of the cairn where the bones were found had been disturbed, except the fact that bones were found not lying on the floor but sometimes more than a foot above it, and mixed with the stones that filled the passage. Besides, if we consider that it was all the upper portions of the skeleton that we found in these passages (the lower being invariably wanting), I think it pretty clearly proves that the bodies were first placed there in a sitting posture, as those portions of the skeleton that lay in contact with the wet floor would be sure to decay long before those that were a foot above it and quite dry; nor is this Camster cairn to be looked at as exceptional, because in some of the others the same thing occurred. And in those opened by Mr. Rhind, those cairns that seemed least disturbed always had the passage filled with stones, among which were found bones above the level of the floor, and to me this appears to have been a second, or perhaps a third use to which these cairns were applied. This filling of the passage with stones and human remains being, at all events, evidently the last.

"Now, sir, from this as well as many other facts that to be appreciated must be seen, I must say (though here no one but myself thinks so), that to me it appears that the original intention of these cairns was for dwelling-places, however inconsistent with our notions of a comfortable home it may appear. The Caithness gypsies at present sleep in spaces not larger than a single chamber of one of these cairns—even a family of six or eight. But it may be objected, that if these floors are really refuse heaps they are very small and could not be used as such for any very great length of time. But if we look at the fact and consider the very large quantity of food and the small quantity of refuse that the vertebrate animals produce when compared with the molluscous, especially when we know that in these cairns the refuse of the former were reduced to their smallest possible bulk by fire, whereas the latter in the true kitchen-middens were not so reduced.

"Then, again, we must consider the poor means at the disposal of these people for the capture of vertebrate animals as well as the scarcity of such animals themselves, and we can hardly believe that any large number of people, furnished with such implements of the chase as the samples they have left behind them, could maintain themselves for any length of time in any one district. We are therefore forced into the belief that these people must have led a nomadic life, and may have been the same that began the kitchen-middens on the coast.

And I believe it will yet be found that the upper and outer crust of these coast-middens are much later than their inner and first-formed parts. The other cairns in this county are as yet almost unknown, for except one 'green cairn' opened by Mr. Rhind at Kettleburn, near Wick, none else have been properly explored, though many have been destroyed, and the relics found in some have found their way into both public and private collections, and from no proper account having been taken of them at their finding, no great value can be placed on them as tending to show whether the 'grey' or 'green cairns' are the oldest. Those we call grey cairns are such as you saw at Yarrows, and are composed of grey stones chiefly, without a covering of earth or mould; the green cairns are covered with mould and thickly grown over with grass. But it appears from the excavation we have made about these gray cairns, that they have all once been built on the outside, and therefore the term cairns as applied here is wrong, for a cairn means a lot of stones thrown together without any attempt at building. And not only does it appear that they had one outer wall covering or finishing the whole outside, but that they had in some cases several inner ones, over and above which the last was added, perhaps at a later period, or when the places were converted into sepulchres. In some of the kitchen-middens, or at least shell-mounds on the west coast, pins of a fine finish and differing nothing from those in use to-day have been found, showing that such molluscous food was used till very lately, and the shells disposed of in manner similar to the oldest of these mounds. I should have mentioned, that in some of the cairns we opened there were evidently two 'floors', one over the other, with a rough pavement or flooring of small flat stones, showing a second occupation. This upper floor has been in every case very thin compared with the other, frequently nothing but a thin crust of ashes and charcoal.

"These cairns seem first to have been used (whether as receptacles for the burnt dead, as some say, and I believe doubtful) as dwellings; then as places in which they laid the ashes of their dead in urns; and last as sepulchres where the dead was disposed of in an unburnt state. If any future evidence yet appear in these cairns that will alter my opinion I will be very glad to do so. Do you not think it very remarkable that no entire skull has yet been found in Caithness? when every cairn we open presents several so decayed that they cannot be touched without going to pieces.

"I am, Sir, your most obedient servant,

"R. I. Shearer.

"I also send you a sketch of some standing stones found near and radiating from a grave which Anderson and myself opened, and in which an urn was found."

The President said that having visited both the localities described in the preceding papers, he considered it most important that the Society should have such full descriptions of them. When he visited Caithness he was struck with the enormous number of those grey cairns which were to be seen on every hill top. They were of prodi-

gious size, several of them being upwards of one hundred feet in length. During his visit one chamber was opened, and he had the opportunity of seeing how it was constructed. There were several chambers in the interior, all very regularly built. The popular idea was, that the cairns were places of interment, but it appeared from Mr. Shearer's paper that he did not think so, and in that opinion he was inclined to agree. Looking at the desolate state of the country and at the positions in which these cairns were placed, he was inclined to think that they had been originally intended not for places of interment but for dwellings, and that they had afterwards been used for burial. It was evident they had been so used in some cases, but that did not invalidate the idea that they were originally built for dwellings. With respect to the cairns with horns, he was not aware that cairns of that formation had been before discovered or noticed; there seemed to be much difficulty in determining whether the horns belonged to the original structure or were made afterwards. The discovery of cairns of that peculiar formation was a remarkable fact, and he considered that the money devoted by Members of the Society to the explorations in the Orkneys and in Caithness had been money well spent, though they had not succeeded in ascertaining satisfactorily the objects for which cairns had been constructed. He hoped that a small portion more of their funds would be appropriated to further explorations. During the whole of his trip to the Orkneys he had frequently heard of the discovery of skulls in different places, but in all instances the skulls had been either buried again or had been destroyed. The question, therefore, as to the nature of the cairns remained to be solved. In Caithness the Society had obtained permission to make further excavations, and he hoped that in the course of next summer the object would be prosecuted. This subject had an important bearing on Mr. Laing's views respecting the prehistoric period of these remains, and in Caithness they had a whole county open to them, throughout which these beautiful remains were thickly distributed. The iron implement discovered and noticed was an important consideration. Its discovery in a cairn was a fact well recorded, and it was likely to have an important bearing on the subject of the introduction of metal implements, and might throw light on the origin of the primitive inhabitants of the north of Scotland.

Mr. Ralph Tate pointed out what he conceived to be inaccuracies in the section of the strata in the diagram exhibited, and he urged the necessity of greater accuracy before any inference was drawn from the position in which the relics were found as to the relationship of man to the geological changes in the north of Scotland. We should be careful not to attach too much value to the occurrence of a nodule of iron ore in a cairn, or wherever it might be found. Such a nodule of iron ore, he said, might be forming at the present day, and it might have been a transported nodule, and have appeared where the cairn was built by the degradation of the boulder clay; or a pebble of iron ore at the top might have found its way to the bottom. The iron knife looked like a far more modern manufacture than the structure of the cairn. The beads found were spoken of as glass, but they were

clearly made of lignite-jet, the material being of a distinct vegetable structure; for if of glass, they would be evidence of a considerable degree of manufacturing skill and intelligence. He considered it a question whether the cairns and brochs could not have been contemporaneous; the brochs having been made for dwelling-places and the cairns for burial. The positions of the latter were most unfitted for dwelling-places in such an inclement climate as the north of Scotland; in one place a cairn was placed on the top of a hill 1,500 feet above the level of the sea.

Mr. C. CARTER BLAKE stated that he had had a conversation the previous day with Mr. Thomas Wright, the distinguished antiquary, on the subject of the relics found in the cairns, and which he had examined. The iron knife he stated was identical in pattern with the Saxon and Scandinavian knives; the bead was of the form commonly called a Druid's gem, or Druid's bead, which beads were supposed to be Phœnician. The bronze pin Mr. Wright pronounced to be a Scandinavian ornament. With regard to the animal remains on the table, Mr. Blake said the bones of the *Bos longifrons* were said to have been identified among them; but there was in fact no difference between the bones of the *Bos longifrons* and those of the domestic ox of England at the present day. He agreed with Professor Owen, the founder of the species of *Bos longifrons*, that he could not ascertain the difference, and the use of the term was calculated to mislead as to the nature of the species. The specimen of a human jaw was interesting, as it afforded an example of great obliquity of the ascending ramus, and was somewhat similar to the Abbeville jawbone.

Rev. DUNBAR HEATH made some observations on the assumed progress of the arts from the south to the north, and considered that it is more consistent with the generally-admitted fact — that the intellectual qualities are developed by the wants of man — to suppose that the necessary arts at least were invented in northern latitudes and transmitted afterwards to the south. The difficulty of existence in high northern latitudes would naturally educate the human power to produce works necessary to provide for the support of life and for protection against the rigours of the climate. In that quarter of the globe, therefore, they might expect such works to be produced rather than in Central Asia, and the origin of the Aryan race is deduced in their own legends from a spot where there are ten months of winter, and only two of summer.

The PRESIDENT said the discussion that had taken place that evening was only preliminary to another on the same subject at the next meeting, at which Mr. Laing had been invited to attend, when five papers bearing on the question of the prehistoric antiquities of Caithness would be read.

The meeting then adjourned.

April 3rd, 1866.

James Hunt, Esq., Ph.D., F.S.A., F.R.S.L., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

The Fellows elected since the previous meeting were announced as follows:—Captain Christopher J. Barnard, 4th W.I. Regiment, Sierra Leone; Edmund F. Davis, Esq., Tavistock House, Tavistock Square; Sir John Gardiner, Bart., Reform Club, Pall Mall; Crewe Alston, Esq., 38, Belsize Park, Hampstead; Frank Wilson, Esq., 41, Arlington Street, Glasgow, and Fernando Po; Samuel Cheetham, Esq., Roslin Villa, Oxton, Cheshire, and Fernando Po; Captain C. R. Williams, 4th W.I. Regiment, Sierra Leone.

The following Local Secretary was elected:—Mark Antony Lower, Esq., F.S.A., Lewes.

The following presents were acknowledged, and thanks were voted for the same:—Official Report on the Andaman Islands (Dr. Hunt); Wilson, Philosophy of Classification (T. Bendyshe); Descriptive Catalogue of Rackstrow's Museum (G. W. Marshall, Esq., LL.M.); Garliglietti, Dutch Anthropology (Dr. J. Barnard Davis).

Mr. Higgins stated that the following letter had been received from Dr. Calloway, the Local Secretary of the Society at Natal:—

"Spring Vale, Natal, Jan. 26, 1866.

"Dear Sir.—I notice in Blake's translation of Broca's work *On Hybridity in the Genus Homo*, p. 53, an allusion to the Australian custom of killing the weakest of two new-born twins, which the author finds it difficult to credit, thinking it 'improbable and inexplicable'. At the same time he supposes that, in the precariousness of savage life, and the uncertain supply of nourishment, a mother who would not find it easy to rear one child, may resign herself to sacrificing one of twins to save the other.

"It is rather remarkable when infanticide has been so common a crime among the most highly civilised nations, that M. Broca should imagine that savages would feel any difficulty in committing such murders; and advance the opinion that if they killed either new-born Mulattoes for one cause, or one of twins for another, it would evidence so great a want of maternal love on the part of the females, as would warrant us in denying them the right to be regarded as belonging to the human race. But many things which appear absolutely improbable, and even impossible from a European standing point, are found on a more intimate acquaintance with savage races, to be common, every-day occurrences; and what we should regard as a crime, the savage often considers as a necessity, and even as a virtue.

"It is impossible to determine theoretically what shall be the result, in any particular case, of a contest between instincts. An instinct may be undeveloped, dormant, or suppressed by a stronger

instinct; it would be a great mistake, therefore, to conclude from the absence of manifestaton, that it does not exist. The love of offspring is a very strong instinct among the natives of South Africa—stronger, perhaps, than any other, but the love of life. Yet parents would, under certain circumstances, leave their offspring to perish, or even kill their infants, to ensure their own safety, or even the probability of their escaping disease or death.

"But my object in writing is not to discuss a general question of this kind; but to say that the custom of killing one of twins exists among certain tribes and families of Kafirs; and to explain, for the information of Members of the Anthropological Society, the native reasons for the custom, which will be found to be a strange superstition, having for its object the preservation of the life of the parents, especially of the father.

"Among some tribes the birth of twins is of rare occurrence; among others not unusual. With the latter the twins are allowed to grow up; with the former it is regarded as a prodigy, and one of the twins is killed. The two children are carefully inspected, and the most delicate one has a clod of earth placed in its mouth, and is thus subjected to a slow death by suffocation. When dead it is buried near the doorway of the hut, and the ikgena, a dwarf aloe, is planted over the grave.

"The reason for this procedure is said to be that, if both were allowed to grow up, they would cause the death of one of their parents; or, as they express it, 'If both are allowed to live, there is some one who will leave them;' that is, one of the parents will die, and leave them orphans. The injurious influence supposed to be exerted by the twins on the father or mother may not manifest itself for many years, not till puberty, or not even till they are twenty years old. The woman who bears them, if both are allowed to live, is said rapidly to become old and incapable of bearing children.

"If the influence does not kill either of the parents, the twins will kill each other by inducing disease in each other. Such is the superstition, and it is evident that all twins can be readily made to fulfil the prophecies uttered at their birth by old crones; for any disease, arising in the parents or in the twins themselves, will be ever regarded as having for its cause the survival of both the twins.

"It sometimes happens that a man, more sensible than the rest, or having the instinct of child-love more developed, objects to have either of his children killed. The old men and women of the village at once gather round him, and recall numerous instances in which fatal consequences resulted from allowing both children to live; until at length fear overcomes his good sense and paternal love, and the child is sacrificed. In one instance a man, in whose family twin-births had been common, married the woman of a tribe in which they were unusual. In due course she gave birth to twins. Her friends assembled, and said it was necessary to kill one to ward off ill luck. The man objected, that to have twins was a natural thing among his people, and would not allow either child to be killed. When the twins were about fourteen years old, the mother became delicate; of course her friends attributed her illness to the obstinacy of the hus-

band, and would not listen to the argument, that had one been killed she would have suffered from the same disease notwithstanding.

"The murdered child is buried near the doorway, it is said, for the sake of the survivor. It is supposed that the surviving infant will miss the companion to which it has been so long accustomed during intra-uterine life, and a soothing influence is thought to issue from the grave. When the child cries it is supposed to be crying and pining for its companion, and is taken to the grave, and carried backwards and forwards over it till it is quiet. It is also daily washed on the grave. This is why the grave is made so near the hut, as it would be inconvenient to go to the usual distance of graves, every time the child cries, to get it quieted by the influence of its fellow.

"The aloe is regarded in some way as the living representative of the dead infant; its spirit or shade is supposed to be in it, or to be hovering about it. When it is planted, its spines are carefully cut away that the survivor may play about it, and drag himself up by it, and make himself strong, as he would have done with his fellow-twin had he been permitted to live.

"A more strange, far-fetched, and inconsistent superstition can scarcely be conceived. You will see that scarcity of food, the difficulty of nourishing two children, the drag which suckling two infants would be on the mother's health, are questions which do not suggest themselves. But simply an imaginary influence, which it is feared will produce ill luck or death. The mother of the twins has little to do with the murder; it is done for her by the crones of the village. But she is aware of it and accessory, and not merely resigned to it.

"If a child is born during famine, it is sometimes killed in the same way by placing a clod of earth in its mouth. In this instance the child is sacrificed with the express view of saving the mother, and preventing her strength from being exhausted by suckling, when her own system is depressed by want. Of course these customs no longer exist where the British Government exerts its influence.

"There is a similar superstition as regards inheritance. If the father dies, leaving numerous large oxen, it is supposed necessary that the son should slaughter them, if not, it is feared they will cause his death.

"I am, dear Sir, yours truly,

"Henry Calloway, M.D., L.C.P.I.

"You will find allusion to similar superstitions in Tylor's *History of Mankind*, p. 117, etc., and p. 292, etc.

"To Alfred Higgins, Esq."

A New Reading of Shell Mounds and Graves in Caithness. By John Cleghorn, Wick.

It is with great reluctance I venture to question before the Anthropological Society of London the conclusions arrived at by Mr. Laing on the graves and shell mounds at Keiss; because I believe that any opinion which he may give on any subject, no matter what that subject may be, must be received with a deference that would not be conceded to one less eminent. As I can look for no such complacency, you need not wonder I have hesitated to bring before you views wholly at variance

with all he has taught; but, from what I have seen of your President, I am sure, if you be like him, the facts and deductions I propose to lay before you shall have justice done them.

We in Caithness are much obliged to Mr. Laing for having examined the graves and the shell-mounds, and for having given us so very distinct and graphic an account of them. The mounds especially were a mystery to us all, and turning them over has made us wiser, and set us free to work in other fields. Many thanks to Mr. Laing. What we find fault with in him is, he has neither read aright the graves nor the shell-mounds, and that the conclusions he has arrived at are wholly erroneous. In venturing to give you a new reading of the graves, and shell-mounds I beg to say that I do not come new to the subject. The antiquities and the geology of the county have for many years had my attention, and I think it was I who suggested to Mr. Laing the propriety of his examining the churchyard mound—a hint that has brought him, if not all his fame as an antiquary, surely not a little. Permit me then to give my reading of the shell-mounds and graves at Keiss. Some years ago the late Dr. Hamel of Russia, he of Mont Blanc notoriety, when here, called my attention to the fact that on our rocks above high watermark there are the pittings of limpets, indicating that the sea is now receding, or the land rising, and similar indications were observed, he said, all round the coast. Since then I have never lost sight of that great fact, and I have found it to be a key that explained phenomena, which without it would have remained a mystery. I believe, with Hutton, that "the economy of nature has been uniform," that this recession of the sea has been going on in our latitudes in past time as it is now going on; and that the rate of this recession has been ascertained. When Mr. Rhind was engaged about Kettleburn, I then gave an account of what he was doing, and ventured to predicate that no Pict's house would be found at a less elevation than sixty feet above high water mark; I did so, because I had learned that the ascertained rate of recession in the Baltic is forty inches in the century. I and some friends happened to be on Noss Head when Mr. Laing was working in his harbour mound, and turning our glasses in that direction we had our attention called to the party at work, and, on my asking what they were about, I was told the party were opening a Pict's house; from that moment I lost all faith in Mr. Laing as a safe antiquarian guide. If Mr. Laing has found a Pict's house there, said I, then the limpet markings on the rocks are incorrect, or Hutton no geologist. Notwithstanding all Mr. Laing has told you, my faith in the markings is as strong as ever, and so is my veneration for Hutton; while the opinion I then formed of Mr. Laing as an antiquary has been strengthened.

I shall now tell you what I have ascertained regarding the mounds and graves.

The position of the Mounds and Graves.—When Mr. Laing had called our attention to the harbour mound, I paid it a visit, and found the base of the grassy hillock to be about fifteen feet above high water mark. Mr. Laing has told you that the raised beach on which are the graves, is ten feet above the high water level; the Birkle hills are on

the same raised beach, and the churchyard mound is about forty feet above high water mark. The geological position of the harbour mound, the graves, and the Birkle hills appears to me to render it impossible they can be ancient. All geologists are agreed that our shores are now undergoing a change of level—that the sea is receding, or the land rising—and from observed facts they are satisfied the submergence can be traced from a height of 1700 feet. Mr. Robert Chambers, who has given this subject more attention than any other man, says, in his *Ancient Sea Margins*, "the shift of land has been effected from at least that height (1200 feet) with perfect equability throughout." Mr. Chambers believes there have been pauses and oscillations in the shifts, but none of his facts seem to me to countenance his views. He infers oscillations from the existence of a set of phenomena called submerged forests. At the meeting of the British Association at Aberdeen 1859, I read a paper on the submerged forests of Caithness (see Report, page 101), and as all the so-called submerged forests around our shores have had an origin similar to those in Caithness, the idea of oscillations must vanish; and I am very sure a close observation of *beaches now forming* must send the pauses to the same limbo. Remove, then, the pauses and the oscillations from the received opinions on change of level, and we have as the faith of geologists, a slow recession of the sea, that has been going on for untold ages, and is now going on. A similar change of level has been observed on continental Europe from Gibraltar to the North Cape; while the American geologists have no doubt that a large portion of the American Continent has been raised within what they term the Quaternary period. From all I can gather it appears to me as well established that a slow recession of the sea has gone on, and is now going on from all latitudes north of the tropics and from thence southward, as Darwin lets us see, the sea is rising and submerging the lands. In the north we have wide continents: in the south the great feature is peninsulas. To me it seems we have in the north, the youth of the world; in the south, its old age; in the former, man in his best estate; in the latter, man in senility, unimprovable, dying out. A change of level such as I have shown being conceded, the question is, does it give us a chronology? Mr. Chambers seems to have had suggested to him the same question; but the only answer he gives is "that very great lapses of time have passed since the sea stood at our highest terrace." "In several places in Scotland, says he, I have found the points or promontories of terraces bearing the faint markings of forts which had been erected by our savage forefathers for their protection. History scarcely hints at the age of these remains, so lost is it in the long night of antiquity." Would Mr. Chambers have gone to a terrace ten or fifteen feet above high water mark, and there sought a relic of hoar antiquity? I trow not. Or having found, like Mr. Laing, "a very irregular grassy mound with loose stones lying about, and showing faint traces of a low outer circular wall or rampart" on a terrace ten or fifteen feet above high water mark, have jumped to the conclusion that this must be "an ancient building," the abode of "aboriginal savages," "cannibals," by exploring which light would be thrown on the antiquity of man? No, no! he would not there have sought a his-

tory lost in the long night of antiquity, and Mr. Chambers is an antiquary; but he is, too, a geologist. He knows well an ancient people could not have raised "a rampart" on our present sea margin ten or fifteen feet above high water; but Mr. Chambers has studied ancient sea margins, and Mr. Laing seems not to know they exist. But have we any clue to the age of these terraces? Well, I think we have got something like it. The rate of the sea's recession has been arrived at with something like unanimity. In the Baltic it is estimated, from marks made to ascertain the rate, to be about forty inches in a century, while the Edinburgh geologists have lately announced that the ascertained rate in the Firth of Forth is about sixty inches in the same time. In Caithness no attempt has been made to ascertain the rate of recession there; but since we have ascertained that the sea is now receding, and has done so in past ages as now, and seeing the economy of nature is uniform over wide spaces of our globe, the probability is that our rate and that of the Baltic coincide, our latitude and that of the Baltic being nearly one. It follows then that the graves at Keiss cannot be more than three hundred years, nor the harbour mound more than four hundred years old. So far as geology is concerned, that science gives no countenance to Mr. Laing's conclusions on the graves, and the harbour mound; and there I would be content to let the matter rest. But there is a class who have no faith in the teachings of geology, therefore let us test the antiquity of the graves and the mounds by their contents, as Mr. Laing has done, and see how that serves him.

The Harbour Mound.—When I first saw the harbour mound a very striking fact arrested my attention, and it is this,—the shells composing the heap are nearly wholly limpet shells, *Patella vulgata*, and I said to myself, this surely, from its proximity to the castle and its remoteness from the village, from its isolation, must be the site of the houses of the fishermen of the castle. I, however, could find no written record of such connection, nor had the villagers any tradition that the castle fishermen had been there located; I therefore gave up that notion as untenable. But here are very curious facts. The harbour mound is on the shore immediately below the churchyard mound, and the shells of the latter are wholly, or nearly so, periwinkles (*Littorina littorea*), while the former are nearly wholly limpets. Mr. Laing has made the same observation, for he says, "This heap is composed mainly of periwinkle-shells, differing in this respect from the others nearer the shore in which limpets predominate." Mr. Laing has either thought it useless to inquire into the reason of the difference, or, having done it, has failed to solve the enigma. Had he resolved the problem, why the one heap is whelks and the other limpets, he would not have come before you and announced his having found "the relics of an aboriginal race, who probably came here as the rigour of the glacial period abated, from the south, with the hippopotamus and elephant." Since Mr. Laing has left us in the dark, I found I could make no progress in elucidating the heaps till the question was resolved, why is the one heap whelks and the other limpets? Why, I asked myself, should this be, and on learning that the churchyard mound is the "Kirk Toft," light began to glimmer on the darkness. On turning up Jamieson's

Dictionary I found "Toft" defined to be "a place where a messuage has stood." The "Kirk Toft" then being beside the Kirk-yard must have had on it the Kirk, but not only the Kirk for here is a midden, there must therefore have been the manse there, the residence of the ecclesiastics; and the whelk shells are the remains of the lenten meals of the priests; for, from the state of the weather, very often they could get neither cod, haddocks, flounders, nor sillocks, therefore had to keep the fast on whelks and limpets. But the clergy did not go to the "ebb" to collect their whelks and limpets, *that* we may be pretty sure of, it would be at variance with all known clerical habits. "We are fishers of men," said they, "not of whelks and limpets," therefore they had men who gathered their whelks and limpets, and the harbour mound is the site of the houses of those servants; and perhaps, too, of those who catered for the castle, for the clergy and the lairds generally pulled well together. But why should the clergy's mound be all whelks, and the servants' mound all limpets? Oh! it is the old story, the clergy took the best that was going—the best edible molluscs is with the priests; they took the whelks, the servants had to be content with the limpets! Since the above was written I have seen a passage from John Gwyn Jeffreys' *British Conchology*, that remarkably sustains the correctness of this reading of the two mounds. "In Shetland and the Orkneys," says he, "the people seem to have a powerful prejudice against this kind of food (the limpet), for we find in the life of Sir Walter Scott that the inhabitants of the rest of the Orcades despise those of Swona for eating limpets, as being the last of human meannesses." The same prejudice exists in Caithness; but from good authority, I know limpets were eaten in times of scarcity by the very poorest; in the memory of people now living, they boiled the limpets and ate them, and with the brew made oatmeal brose, called limpet-brose.

The periwinkle trade of Billingsgate is even now not a small matter. "The supply is about 2000 bushels per week," says Mr. Jeffreys, "for six months, from March until August inclusive, and about 500 bushels per week for the remaining six months;" but he takes no notice of limpets being there sold, therefore, I infer, when these two middens were formed, there were men of discrimination at Keiss nearly on a par with modern cockneys, and that the Keiss clergy's appreciation of whelks is just what might be looked for in gentlemen three or four hundred years ago forced to eat one or other of these molluscs. It is a pity Mr. Laing, when he saw the one midden to be limpets and the other whelks, and both belonging, as he says, to "an aboriginal people", satisfied with "rude banquets"—"cannibals," it is a pity he did not explain how it came about these "savages" were so discriminating when whelks and limpets came on the board? But let us look at the other component parts of

The Churchyard Mound.—Mr. Laing tells us, "The animal bones were less abundant and more generally chipped into small pieces than those found in the other mounds. It seems as if four-fifths of the food of the people by whom this most ancient midden had been accumulated had consisted of periwinkles, and as if animal bones had been a delicacy, from which every particle of marrow was extracted by

breaking them up." Let us see now whether Mr. Laing's inferences are legitimate inferences from his facts. Mr. Laing does not hint that this primitive people ate whelk shells—the presumption is they did not; therefore, when emptied, they were thrown on the midden, and, though forming only a small part of the food of the people, the shells would in fifty or a hundred years make a most conspicuous heap, while the other *rejecta* of the kitchen would decay or be utilised. No evidence here, surely, that whelks formed four-fifths of the food of the people. But then the bones are chipped to get the marrow. Mr. Laing says "the larger bones had generally been broken to extract the marrow." Really there is no use in being so sensational about chipped and small bones being found in a midden; they are there chipped small, as now found, *just because meat-saws had not then been introduced into the manse kitchen!* Mr. Laing does not insinuate that the people who accumulated "this most ancient midden" dressed their food like the Otaheitans. He does hint that they kindled their fires by rubbing. "It has occurred to me," he says, "that these stones may have been used for obtaining fire by friction." But this is not the manner in which the Otaheitans got their fire; "they kindle a fire by rubbing the end of one piece of dry wood upon the side of another, in the same manner as our carpenters whet a chisel," says Captain Wallis. But our Caithness savages, having got a fire by "rubbing a stone," or no matter how, did they, to dress their food, dig a pit, and pave the bottom with shore stones, then kindle a fire in it with "scrubby underwood" and turf, take out the embers, raking the ashes on every side, and covering the stones with leaves, and laid there the *Bos longifrons* in his hide covered with the hot embers, and laid on them "*cazies*" full of limpets and whelks, covering the whole with hot stones and turf? Except by this mode of cooking, how else, without saws, and having only rude cleavers, made by a native smith, could the bones of the animals used for food be otherwise than "chipped small?" Let Mr. Laing make the trial of dividing an ox, sheep, or pig into boiling and roasting pieces for his family with a bad knife, a worse cleaver, and no saw, and see the mess he will make of the bones; chipped small doubtless they will be, just as he has found them in the Keiss middens. But Mr. Laing says, speaking of the harbour mound, "the larger bones had generally been broken to extract the marrow, but not into such small fragments as in the churchyard mound." May not this be that the cold joints of the manse were sent to the servants at the shore?—the kirk midden, consequently, ought to have the bones there in a more comminuted state than at the shore. Mr. Laing says, Mr. Roberts and Mr. Carter Blake, assisted by Mr. Davies, identified the *Bos longifrons* and *Equus caballus* fossils from those middens. Had they no doubts? Can it be there were in Caithness three or four hundred years ago the *Bos longifrons*?

The great auk, *Alca impennis*, being found, says nothing in favour of the antiquity of the mounds, seeing the bird has only disappeared in the memory of men now living. "But rude pottery, two bone arrow-heads, and eighteen skewers or pins of fragments of bone and horn, worked

roughly to a point, which may be appealed to confidently as a proof of the absence of metals, and extreme rudeness of the race by which they were used. They are, in fact, the *ne plus ultra* of rudeness in bone," and Mr. Laing says were found in the midden. No doubt the pottery is rude; perhaps, it was made in the county by amateur artists. If so, then let a similar class now, in Caithness or London, with none of the appliances of the potter, fabricate a bowl, and I question much if the specimen be any improvement on the rude pottery of the Keiss middens. Rare communication with the south by sea, and no roads, must three or four hundred years ago have made wheel-made pottery unattainable, and would drive the natives to make rude vessels for rough uses. The two bone arrow-heads and the eighteen skewers or pins of bone or horn, are, I believe, no proof of the absence of metals. I have not seen the so-called arrow-heads, but I think any one acquainted with the usages of the county would see they had been fabricated for quite another use than arrow-heads. The skewers or pins I recognise as admirably adapted for picking whelks, and the reason there are so many of them found in the heaps of shells is no other than the carelessness of the manse servants. The pins are rude, I know, but not more rude than pins of bone for picking whelks now would be were the modern clergy the makers. Please, Mr. Laing, try and make a skewer or pin of bone with a bad knife while at dinner, and excel them if you can. But there was found in the centre of the churchyard midden "a human tooth and a small portion of the jaw, which is important in connection with a similar discovery in another mound," says Mr. Laing. I shall notice this discovery when we look at

The Harbour Mound.—"This mound contained the greater number of relics," Mr. Laing says, "and faint traces of a low outer wall or rampart."—"A great mass of Cyclopean building." There was also "the appearance of a fire-place and chimney between two circular walls and outside a massive stone staircase of eleven steps;" also a shell midden of limpets. In the heap were found rude implements of stone, chipped flints, rude implements of bone and horn, and coarse hand-made pottery, which correspond entirely in character with these found in the churchyard middens and burial mound."—"A pair of rusted scissors, a combination of bronze and iron intended to form a small pair of shears such as might be used for clipping sheep."—"I found the fragment of the human lower jaw now produced. It is that of a child about six years of age, the permanent teeth being formed but not having yet displaced the milk teeth. The presumption is," says Mr. Laing, "that these aboriginal savages were occasionally cannibals." Now let us first look at the "rampart," the "Cyclopean building," the "fire-place," "chimney," "circular walls," and "eleven steps." In all honesty, in these I recognise the ruins of a common corn kiln of the county. The fire-place is the "*kilnsernie*," and Mr. Laing knows what that is; and the "eleven stone steps" are the ascent to the sole on which the grain or malt was laid. Only think of the absurdity of finding a fire-place and chimney in "a rampart," in "a Cyclopean building" of "the early stone period" when

man was contemporary with the mammoth and rhinoceros. Why, we have a building here of the twelfth or thirteenth century called "Oldwick," a building of pretensions far higher than anything Mr. Laing has exposed, and at the period of its erection chimneys were unknown in Caithness. Then look at the instruments found, no sign of antiquity surely. The rusted shears I recognise as a pair of weaver's shears. But then these "aboriginal savages were cannibals." Such a charge is surely a fitting climax to the inaccurate statements Mr. Laing has laid before the Anthropological Society of London. It appears to me, however far back our progenitors may be who collected this midden, a chipped child's jaw, *and the jaw of the child only*, being found there, may be logically accounted for without resorting to cannibalism for an explanation. In the midden there was found the remains of the boar (*Sus scrofa*) and dog (*Canis familiaris*), either of whom are very likely to have run off with the jaw from the churchyard not far off. But seeing the midden cannot be more than four hundred years old, any accounting for the jaws now by me, or any refutation of cannibalism so recklessly advanced, would be a waste of time.

The Moorland Mound.—Mr. Laing's moorland mound, his modest "pre-historic dwelling," that does not go back to the Abbeville period, when man was contemporary with the mammoth and rhinoceros, I found to be "the kirk stanes" of the district. "In the present day," says F. Max Müller, "the Highlanders are said to use the expression, 'Aam bheil thu'dol do'n clachan' (are you going to the stones)?'" the meaning being, are you going to the church? On visiting the kirk stanes I saw a green space of considerable extent, beside a stream in a vast moor, an oasis in a desert, with several knolls and moss-covered stones peering through the sward. Its name gives us an inkling of its history. To me it seems to have been the abode of solitaries, monkish cells, places of penance. The relics Mr. Laing found here do not belie that supposition. "Some fragments of pottery, wheel made."—"A stone hammer, or oval beach stone."—"Two small wheels."—"Some smooth pebbles from the beach, which I take to be sling stones," says Mr. Laing. The oval beach stone called a hammer is perfectly gratuitous, and so are the sling stones. From all I have seen of Mr. Laing's stone weapons none of them could I recognise as owing anything to art; similar "weapons" may be gathered any day by the barrowful.

The Long Burial Mound "is the most important" and "most interesting" of Mr. Laing's "discoveries," and comes next to be considered. I found it to be the place of burial of castaway sailors, drowned shipwrecked mariners; such is the tradition, and such is the local belief. Take a map and observe the position of Keiss as it lies to the Pentland Firth, and you will see that Noss Head must often have been mistaken for Duncansbay Head, the entrance to the firth, by vessels bound for the west. Indeed, so frequent were these mistakes in my memory, before Noss Head light was erected, that seldom a year passed without a wreck at Keiss; and before the Skerry Lights*

* The Pentland Skerries were lighted on 1st October 1794.

were up, these mistakes must have been much more frequent. Keiss was generally the landfall of all such vessels. Thirty years ago I saw the shores of Keiss strewn with the bleached timbers of great ships stranded there, and I recollect seeing Dutch made pots, called negro pots, in use here that were taken off a Dutch vessel for America, wrecked at Keiss. A stigma yet attaches to a family here, whose grandfather, or great grandfather, pulled the rings off the fingers of a Dutch lady with his teeth as he was assisting to carry her up from the stranded ship at Keiss.

That drowned sailors were buried on the shore at Keiss, I am assured by William Cormack, an old inhabitant at the shore, and he pointed out to me the Dutchman's grave a few yards from his own house; the grave he tells me of a Dutch captain who was wrecked when his (Mr. Cormack's) father was seven years of age. Mr. Cormack's father died eighteen years ago, and was ninety-seven years of age when he died, so that this grave must have been made one hundred and eight years ago. I shall try and disinter this Dutchman and send the bones to London that you may decide in what these bones differ from those disinterred by Mr. Laing. I am anxious to uncover this grave, about the age of which there can be no question, that we may see the mode in which the Keiss folk interred drowned sailors one hundred and eight years ago. I am very sure when this grave is opened it will be found in every respect to resemble the generality of those opened by Mr. Laing, because seven or eight years ago, David Sutherland, contractor, when making a road to the shore, a little to the north of the harbour mound, came on a grave similar to those Mr. Laing opened, and in it found a number of coins, some of which I now produce, a grave that could not be more than two hundred years old.

We have no trees, or very few in Caithness; wood, then, must have been an expensive commodity in Keiss a hundred years ago, and must have been still more so a century earlier, hence the "cists" or stone enclosures made to contain Mr. Laing's "primitive people."

Keiss Bay, or Sinclair's Bay, from Ackergill Castle to Keiss Castle, is five miles round. A few years ago Sir George Dunbar cut a road through the sand-hills from Ackergill Castle westward, and in that cutting I saw a grave like those opened by Mr. Laing at Keiss, and at various levels in the sand-hills were human skeletons uncoffined. Sir George Dunbar's belief then, and now, and the common belief here is, that at very short intervals along shore, human skeletons may be found, the remains of wrecked sailors; but about Keiss was the great focus of the wrecks, and *there* must be the greatest number of graves.

The stone implements said to be found in the graves I believe to be no implements—not works of man's making. Such "implements" you may collect by the barrowful, if not by the cart-load, any day on the shores of Keiss; that is how I viewed the so-called "weapons" taken out of a grave at Keiss and shown to me. But if Mr. Laing has found stone implements in the Keiss graves, his finding them in graves two hundred years old should not be a matter of astonishment

to us. I see in *The Celt, the Roman, and the Saxon*, by Thos. Wright, London, 1852, page 72, he says, "according to the recital of William of Poictiers some of the Anglo-Saxons fought with weapons of stone at the battle of Hastings, and they are said to have been employed by the Scots as late as the wars of Wallace." If, then, stone weapons were used by the Southern Scots five hundred years ago, the knowledge of them must have continued here till a much later period. M. Pruner-Bey says, "The Celts of the British Islands have used stone weapons down to an epoch very nearly approaching our own. In Irish legends the 'leah-noile adh' (sling stone carried in the girdle) plays an important part in the poesy of the bards. The various terms for spear are also reducible to the root signifying stone." If Mr. Laing has found stone implements in the Keiss graves, then I am of opinion, with Sir Charles Nicholson, that the people of Keiss interred in the graves rude similitudes of the weapons worn by the wrecked sailors, and appropriated the real weapons.

Mr. Laing says, "he lighted on a people of the early stone period," of which the type of the skull was dolichocephalic. Now, I see, M. Pruner-Bey tells the Paris anthropologists that the brachycephali correspond with the stone period in the north, and that "there is in all questions relating to the races of mankind much that is certain, much that is probable, and much that is uncertain." Mr. Laing never sees a difficulty, speaks like one having authority, and arrives at his conclusions with startling precipitancy; and then the pitiable thing is, all his parade of learning is thrown away on drowned sailors, and female passengers wrecked at Keiss not three hundred years ago.

The variety in the skulls is inconsistent with Mr. Laing having found "graves and skeletons of an aboriginal race of North Britain, which is either itself of great antiquity or represents a race who had lived on, little changed from the earliest period." The skulls want the homogeneity, such a supposition would imply, some are of the "Negro type," some of the modern European. Mr. Higgins says "two differed very much from the rest, and might have belonged to any Englishman of the present period." Mr. Carter Blake says, "No. 1 skulls had been said to be of a degraded character, a female." Mr. Prideaux says of them, "what is certain about them is, that their type does not enter largely into the composition of the crania of the existing English peoples; but some of the Scotch, especially near Aberdeen, bear some resemblance to them." A skull and other bones from the same graves, were sent by your local secretary, Mr. Anderson, to Dr. Arthur Mitchell, Edinburgh, and that gentleman, writes Mr. Anderson, "In examining them I have been greatly assisted by W. Turner, Esq., who is probably the best craniologist we have in Scotland. The description which I append, is written by Mr. Turner, and will be read, I am sure, with interest."

"You will observe that the head is not regarded as of a low type. Indeed, I think it would be easier to get a worse head among the women of our own day, than it would be to find a better one, etc."

Mr. Turner says, "The bones consist of a skull, pelvis, and two thigh bones apparently belonging to the same skeleton, and are in an

excellent state of preservation. Their original owner was a woman about the middle period of life. The skull is well formed and belongs to that group which ethnologists distinguish by the term dolichocephalic or long-headed, so that it corresponds in its general dimensions to the crania of the present inhabitants of these islands, and of North Western Europe. The extreme length is 7·2 inches, the extreme breadth is 5·1 inches. The face is somewhat narrow in the region of the upper jaw, but possesses none of that projection forwards, or prognathism which is so characteristic a feature in the Australian or Negro races. In its horizontal circumference the skull measures 21.3 inches; its internal capacity equals 89 cubic inches. The latter measurement is especially interesting, because it shows that in the amount of space for the brain this cranium not only considerably exceeds in its capacity that of the skulls of women in modern savage races, but it is on a par with, or even somewhat in excess of, the average cranial capacity of the women of our island at the present day. From the manner in which the surfaces of the crowns of the teeth, more especially the molar series, are worn down, it is evident that the food in use at the time must have required considerable trituration during mastication.

"The pelvic bones are not quite symmetrical in form, and the hips are somewhat narrow. The ridges, or the bones for the attachment of the muscles, possess no great prominence, hence it may be concluded that the woman was not required to lead a life compelling any great amount of muscular exertion.

"The thigh bones were elegantly formed, their extreme length was seventeenth inches. From the length of these bones some idea may may be formed of the stature, which was probably not more than five feet four inches."

As to the mode of burial, Mr. H. Burnard Owen says, "From the position of the skeletons, being on their sides, I am inclined to believe that the date of interment must have been subsequent to the introduction of Christianity."

In the character here given of the skulls, the skeleton, and the mode of burial, Mr. Laing surely must be wrong in thinking he has "established" "that the burial mound with its kists and skeletons, is unquestionably of the early stone period," "and that the type of the race is very remote from that of any modern European race." Does it not rather go to establish the correctness of the popular opinion, that the graves are those of drowned sailors, and female passengers wrecked at Keiss not more than three hundred years ago? I believe, that on the shores of Sinclair's Bay there may be found representatives of every European maritime nation, and some Negroes, and the opinions quoted on the skulls found there favours that conclusion.

The Birkle Hills.—Mr. Laing did not examine these mounds with the care he bestowed on the others, and he justly remarks, "Further examinations would be necessary to disclose the structure of these mounds, as to which all that can be said with any certainty is, that they are probably of the same period as the burial mound and the lower strata of the other mounds." But, though he knew so little of

them, he says, "They may not have been regular dwellings, but rather places of worship or sacrifice, when the neighbouring tribes met to regale themselves with rude banquets."

I have visited the Birkle Hills, and the conclusion I have arrived at regarding them is, that they are natural hills, like the hillocks of blown sand amid which they stand. They differ from the other hillocks in being firmer, more consolidated, and covered with small stones from the beach. They have, too, at their base and on their sides, "kists," like those at the burial mound containing human bones, and they seem all to have had cairns of beach stones heaped over them. Were these hills "of the same class as the other conical mounds of Caithness, viz., consisting of concentric circular walls and cells or chambers in the interspaces between the walls," as Mr. Laing says they may be, how comes it that we have on these "ancient buildings," the graves of a people still older, "the aboriginal race of North Britain?" The thing is absurd. These mounds are hillocks of blown sand that have been consolidated by their having been the rendezvous of the country folks on occasions of wrecks, from their being nearest the scenes of such disasters. They are on the same raised beach with the graves and the harbour mound, therefore cannot be older than they. "The cyclopean building of unhewn stones from the beach" has been the place of shelter for the night-watchers, and the "ovens," or "fire-places," are the hearths where the crowds lighted their fires not only to warm themselves, but to cheer perhaps the embayed sailors during their dismal nights. Then look at the relics found: nails of iron, charcoal, stones split by heat, bones all charred, whorls, fragments of iron, etc., just what such gatherings of men and women as I have pointed at might be expected to leave.

Birkle Hills, whence came the name Birkle? It is not Scotch, it is not an English word; then whence came it? An ingenious friend suggests it may be the name or something like the name of a ship wrecked at Keiss, or perhaps a corruption of the Dutch word "*Berigten*" or *Brichten*, to *advise*, to *inform*, from the mounds having been the look-out post of a Dutch crew there cast ashore. From so many graves, and all of one type being on and around the mounds, we may not unreasonably infer that they are those of one crew, imply a large ship, and that the ship gave name to the hills.

Conclusion.—I respectfully submit in conclusion, that the views Mr. Laing has taken of the shell-mounds and graves at Keiss are at variance with the teachings of the geologist, the archæologist, and the anthropologist; and that there is a want of proof in his premises, and of logic in his deductions.

On Human Remains at Keiss. By George Petrie.

Caithness, Wick, Sept. 9th, 1865.

My dear Dr. Hunt,—On Thursday I visited, along with Mr. Anderson and Mr. Cleghorn, the Kirk Stanes, two or three miles from Keiss, the Shell Mounds of Keiss, and the Birkle Hills. The "Kirk Stanes" is a large mound or ridge, about seventy-five paces long, in the middle of a moor, and is covered with stones set on end, assum-

ing at some places the appearance of stone circles. On the crown of the ridge there are three distinct circular-shaped mounds, the highest of which is at the east end, and contains the ruins of what I think undoubtedly has been a chambered tomb, about eleven feet long and seven to eight feet wide. On searching among the débris thrown out of the chamber, Mr. Anderson picked up a fragment of iron which, on examination, I recognised to be a nail with a large head and a rivet at the other end, which had formed part of a wooden shield. I have exactly similar fragments from one of the graves in Westray, where the shield when found preserved its form. We also found several shells of the "barnacle" in the corner of the chamber.

I think it is to be much regretted that Mr. Laing did not examine the shell mounds more thoroughly. I also visited the so-called Long mound. Perhaps it may be thought presumptuous in me to express a decided opinion in opposition to Mr. Laing, but having become familiar with the appearance of the sepulchral mounds of Orkney in *sandy* districts, and observing that the Keiss mound is of a similar character, I had little difficulty in forming an opinion on the subject. It is similar to mounds in Westray, and I believe is a natural formation. If dug into to a sufficient depth, I believe it would be found that the sand has accumulated around a nucleus of beach stones thrown up by the waves into a ridge along the shore, and that the graves have been made in the sand hill or ridge so formed. Various reasons might be given, did time permit, to corroborate this; but I can at present merely remark that I noticed that a section of the sand made by a road shows that the sand is stratified just as is seen in the Links of Westray and other places where the sand has been deposited by natural agents.

I next visited the Birkle Hills. That they are *artificial* is just as certain as that the so-called long mound is natural. Mr. Laing seems to have only penetrated a short way down through the top of the two mounds. On the top of the smaller one I picked up among the débris thrown up by Mr. Laing's excavation a small fragment of *iron*, like a spear point, and on the same spot two fragments of stone which I at once identified as portions of a stone vessel or cinerary urn, as I have seen many of the same kind of stone and form indicated by the fragments, and have still some in my possession. One of the fragments is a part of the lip or mouth of the urn. Mr. Anderson showed me last night the fragment with a hole in it, which Mr. Cleghorn maintained had been made by the Pholas perforating it. Mr. Cleghorn denied that it was artificially made, or that it formed part of an urn. The moment I saw it I recognised the usual form of hole which I have more than once observed in the bottoms of stone urns. I have in my possession an urn containing three similar holes in the bottom. On taking the fragment into my hand, I pointed out to Mr. Anderson and Mr. Shearer the marks of the tool distinctly visible on the stone, and these are still more distinct on the fragment I picked up. I also showed them that the fragment was the edge of the bottom of the urn, so that we have got a portion of the mouth and also of the bottom of a stone urn which has had one or more holes in it to let

the water run out. Dr. Mitchell had also given in to Mr. Cleghorn's opinion "that facts are stubborn things," but experience greatly aids in reading them aright.

I have been endeavouring to explain to Mr. Anderson and Mr. Shearer the various types of antiquities in Orkney, so that they may have less difficulty in examining the antiquities here, which I find generally resemble those in Orkney.

Can you not get the association to give me a moderately reasonable grant of money to explore thoroughly any of the more perfect of the large barrows still extant in Orkney, or to ascertain by excavations the exact form and nature of the surrounding defences of the Broch in Shapinsay, which Mr. Balfour opened? None has been thoroughly examined or exhausted. I would rather have a good specimen well done than several only partially.

I had nearly forgotten to remark that it appears to me that the finding of the iron and the fragments of an urn seem to point to a secondary interment, and as the urn is in pieces, and only portions found, probably it belonged to an older interment, and had been disturbed and broken when the interment to which the iron belongs was made. I have communicated the foregoing in case you think it worth to add it to your notice of the Caithness antiquities. I have arranged with Messrs. Anderson and Shearer to communicate additional information to them about the Orkney antiquities, to guide them in their own researches.

Hoping to hear from you on my arrival at Leith,

I remain, yours very truly,

Dr. James Hunt, F.S.A. GEORGE PETRIE.

On Human Remains at Keiss. By JOS. ANDERSON, Esq., Loc.Sec.A.S.L.

As I have been asked to give my opinion regarding Mr. Laing's book and the Keiss remains, I shall do so as shortly as I can. I have already alluded to the matter in the *Journal*, but having now seen Mr. Laing's description and the drawings of the weapons, etc., I shall make a few observations regarding the several questions likely to be raised in connection with the discussion of the subject.

And first, on the general question, after having minutely examined a considerable number of the other ancient remains of the county, I find it impossible to resist the conclusion that the Keiss remains to a large extent are not capable of explanation by comparison or analogy with them. In saying this I refer specially to the "burial mound" so-called, with its contained graves, and relics. They are entirely, so far as is yet known, *sui generis*, and although it has been ascertained that similar graves, and a mound exactly analogous to the Birkle Hill have been found on the Ackergill side of the Bay of Keiss, the one does not explain the other. More extensive and rigid examination of the whole locality of Keiss is absolutely necessary before reliable conclusions can be deduced, either as to the age of these graves, and mounds with refuse heaps, or as to their true relation to the other antiquities of the county. The abounding and ingenious speculation with which Mr. Laing's book is filled I regard as quite

premature; what is wanted for the elucidation of our northern antiquities, at least so far as Caithness is concerned, is a systematic collection of well-ascertained facts. The field is one in which the ground has scarcely yet been broken, and it will be quite time enough to begin to spin elaborate theories when the field of investigation has been exhausted, in as far at least as the locality in question is concerned. When the last ascertainable facts have been hunted out and placed on record, there will at least be the excuse for theorising that there are no more facts to gather. Mr. Laing, as the President is aware from having visited the scene of his explorations, only partially excavated the mounds which he has described, and as he reasons greatly on negative evidence, *e.g.* the absence of metal, of flint weapons, and of sheep bones, etc., in coming to a conclusion as to the probable antiquity of the mounds themselves, this negative evidence could only be admissible in a case in which the whole mound had been thoroughly searched and completely excavated.

The "burial mound," so-called, I regard as the most puzzling and unsatisfactory of the whole, though Mr. Laing regards his excavations in it as the most important and interesting of all. I got four graves excavated, at the left of the section given in Mr. Laing's frontispiece, and found them in line with those previously excavated by him. In fact, Mr. Sang, who opened Mr. Laing's as well as those for me, got their position, in each of the four cases, sucessively by simply pacing five yards along from the centre of the one last opened. I saw these four opened. They differed in no way from those previously opened by Mr. Laing. Nothing was found in them but the skeleton. Mr. Laing says he thinks the bodies have been laid on the natural surface of the ground and the mound heaped over them. The mound, I believe, is a natural one of blown sand, and so far from the bodies having been laid on the surface of the ground, there is no ground at all beneath. We dug down beneath the bottoms of some of the graves, through clean sand, to the old beach on which the sand ridge rests, I subsequently got Mr. Sang to open a grave next to Mr. Laing's No. 7, or "chief's grave" so-called. This one I did not see opened, as I was not able to go to Keiss till the day after it had been done. Mr. Sang sent me the contents, which Mr. Laing has figured as those of "Kist No. 9." They are undoubtedly manufactured by chipping and grinding. That they were found in the grave I did not doubt, as Mr. Sang had no motive whatever for deceiving me. He volunteered to gratify my curiosity about the graves, and if I had employed him, for the sake of a large gratuity, to *find* weapons, I had but little chance against Mr. Laing, for whom he had previously done so much. What he did for me was done purely as a labour of love, though I was previously unacquainted with him, and because, as he said, both he and I wanted to see a little more of the graves than we had seen. But I would not ask any one to believe that "weapons" or articles really manufactured by human hands have been found in the Keiss graves solely on my confidence in Mr. Sang's integrity. Luckily there is the testimony of two gentlemen no way connected either with Mr. Laing's excavations or with mine. Some days after I got these weapons, Mr.

John Gill, of Blingery, and Mr. Mitchell, superintendent of police, were at Keiss, and Mr. Gill wishing to get some of the Keiss relics for a scientific friend, prevailed on Mr. Sang to open another grave, one to the left of Mr. Laing's No. 7. Both Mr. Gill and Mr. Mitchell were present when it was opened, and saw the three weapons taken out of it. They were not all found at once, and some considerable search was made before they were got among the sand in the bottom of the grave. These weapons, which are better manufactured than any either of mine or of Mr. Laing's, are now, with the skull, in the possession of Professor Ogston, Aberdeen University. Whether any of the articles obtained by Mr. Laing be really weapons made by human hands or not, there can thus be no manner of doubt, I think, that there were weapons taken from at least one grave, as these two gentlemen testify, even if we assume that Mr. Laing was self-deceived, and that Mr. Sang deceived me.

You will perhaps be inclined to ask how then do I account for only two or three of the graves in the so-called "long barrow" containing weapons, while all the rest contained none, or if they did, none were found. I confess that is to me a puzzle; but I will tell you how Mr. Laing may get over the difficulty. I observe that of the *seven* skeletons described in his book, *five* are those of women, and with them of course you would not expect weapons to be buried. Believing as I must that weapons, or *simulacra*, or whatever you may choose to call them, have been found, I am content with the fact; though I cannot explain the anomaly either of the character of the weapons, or their partial distribution among the graves. There is one thing, however, which I think is suggestive. When Dr. Hunt visited Keiss we disproved the "five yards" arrangement of the graves in what Mr. Laing calls the "centre" of the mound, though that seems to me to be its northern extremity. We ran a trench ten or twelve yards along from the "chief's grave" in a northern direction (to the right in the section in the book), and though we should have found two graves in that space on the five yards hypothesis, we found none. Again, the distance between the four graves opened there (those by Mr. Laing and the two for me and Mr. Gill) is not five yards, but they lie at irregular intervals. I infer from this that the five yards arrangement only holds good at the southern extremity of the ridge (left in section), where the Keiss folks say shipwrecked people were buried long ago. It is true, they call the "chief" himself a "shipwrecked mariner;" but though I could not claim as indubitably ancient, full length graves that have nothing in them to give a clue to their age, I would unhesitatingly say that those buried with chipped quartz implements and stone spear-heads, were no drowned sailors or cast away passengers. Some considerable time ago a cairn bearing all the appearance of the ancient cairns in the hills of Caithness, was cut through in digging a deep ditch at the northern extremity of the mound, a hundred yards or so further to the right than Mr. Laing's section (in the book) extends. It contained a cist and skeleton. I have several times examined it, and believe it to be an ancient cairn. The circular wall round Mr. Laing's chief's grave is just about the diameter

of the circular wall in a cairn with a central cist at Yarhouse, close beside two standing stones. It is not unusual for three such cairns to be contiguous and in a line, and if it was proved that the "chief's grave," the one whose weapons I got, and the one opened by Mr. Gill, were really in cairns, there would be nothing remarkable in finding weapons in them. However, I have never yet seen a cist in a cairn whose sides were formed of several stones. They have invariably, whether long cists or short cists, been formed of single stones. The grave on the Birkle Hill, from which the other weapons sent to me were got, seems to have been made of single slabs. Of course the construction of the cists would vary with circumstances whether the interments were ancient or recent. The theory of shipwrecked sailors may fit well enough with the graves at the one end of the mound, where they lie in line at regular intervals, and in one case one on the top of the other; but those with the weapons require a more congruous explanation.

The "churchyard mound" of Mr. Laing's book I regard as the refuse heap of an ancient borg, the structure of which has been mostly quarried away. The idea of part of the building having been founded on the top of the refuse heap is, as far as I could ever see, entirely erroneous. I saw the section Mr. Laing refers to, and examined it minutely two years before he came to Keiss, when it was somewhat different from what it was when he explored it, and I saw it several times while his excavations were going on, and I think the appearance was solely due to the spread of the rubbish from the quarried out old building.

The "harbour mound" I also believed to be an old borg long before I saw it opened by Mr. Laing, and having seen it opened I have seen no reason to change my opinion, but everything to confirm it, although I do not believe that any part of the structure laid open by Mr. Laing is that of the original building. The thinness of the walls and the fireplace show that it has been adapted and used for some recent purpose. The division of the refuse heap into primary, secondary, and tertiary strata I consider fanciful. Being borgs (if they really are so) I cannot see why Mr. Laing should assign such an extremely high antiquity to them as he seems to do, nor can I see how all the borgs of Caithness and Orkney must follow the two at Keiss, which are even yet but very insufficiently explored. Mr. Laing assigns all our borgs, on the negative evidence of those two at Keiss, to the early stone period, and to the earliest stage of that period—to any time between the quaternary period and twenty centuries before the Christian era. Yet I do not know another borg explored in Caithness in which bronze has *not* been found. Again, the sheep was found in Kettleburn by Mr. Rhind, and I have found sheep and lambs (as determined by Professor Busk from a collection of bones partly from Old Stirkoke and partly from Keiss), though Mr. Laing founds an argument for the high antiquity of the Keiss borgs on the absence of the sheep.

It is no objection to the harbour mound being a borg, that it is only a few feet of vertical elevation above tidemark. In the case of the

borg of Clickamin at Lerwick, its foundations are at the high water mark almost, if not below it. I do not go into the question of the age of these structures, further than to say that I would sooner place them, and the whole of the Keiss remains, on this side of the Christian era than twenty centuries before it—that is if I were compelled to assign a probable period for them.

In regard to the "moorland mound," for which, however, Mr. Laing does not claim an antiquity so very remote, it is one of an irregular cluster of mounds, some round, some oval, and others presenting an external appearance as if they were the ruins of rectangular buildings. They are scattered over a green oasis on the elbow of a small stream in the midst of a vast moorland waste. Their local name is the Kirk Stanes, and it is supposed that a Culdee chapel once stood there. There is another place, also on the elbow of a small stream in the middle of the moss of Kilmster, which goes by the name of the Kirk o' Moss, and if a person were led blindfold to either, so similar are the situations and the appearance of the green oases dotted irregularly with small mounds and stones on edge standing out of the turf, that it would puzzle him to say whether he was at the 'Kirk Stanes' of Keiss or the 'Kirk o' Moss' of Kilmster. In the moss of Camster there is a similar place, which so far as I can ascertain has no tradition of a kirk about it; but Mr. Shearer, who asked about its history, was informed by an old man that it was an old shieling, and that he remembered it as the head-quarters of the cattle and their attendants from the farms around the extensive moor when they were quartered out in summer-time. Whatever Mr. Laing's moorland mound may have been to begin with, I have little doubt it was a shieling in its latter days. When I visited it last summer in company with Mr. Cleghorn and Mr. Petrie, we found in the rubbish of Mr. Laing's excavations an iron rivet, which I send with the other articles forwarded.

My conclusions, from all the facts ascertained (though I do not think we yet know all the facts necessary to draw definite conclusions), would be:—

I. That the burial mound, so called, contains two sets of interments, one presumably older than the other, but concerning either of which we have no reliable data for determining their age, though the one may with considerable probability be conjectured to be recent, and the other not of any very great antiquity.

II. That the "shell mounds," so called, being refuse heaps of borgs or Picts' houses, cannot be referred to what has been called the "early stage of the stone period;" that they present no general analogy with the kjökken-möddings of Denmark, and in all probability belong to the transition period when the prehistoric and the earliest historic records of the North of Scotland merge into and throw light upon each other.

III. That the "Birkle hills" are still undetermined as to their character and contents, and

IV. That the "moorland mound" is most likely the site of an early Culdee settlement latterly used by the country people as a shieling.

On Human Remains at Keiss. By ROBERT I. SHEARER, Esq.

I HAVE now seen Mr. Laing's book on the prehistoric remains of Caithness, and cannot help offering a few remarks on it. But before doing so, allow me to state that I am well acquainted with all the prehistoric remains in this side of the country, whether explored for scientific purposes or otherwise, and have seen all the excavations made and been personally connected with them, except in one single case—Kettleburn. When our late lamented countryman, Mr. Rhind, commenced opening the cairns on the Yarrows hills, I wrought with him, and we opened four large cairns and several smaller ones. Since then I have opened several kists; and last year, in company with Mr. Anderson, we opened four large cairns and three or four kists. Mr. Rhind, in all his labours among these cairns, only found one skull in such a state of preservation as allowed it to be restored partially. In our own excavations last year, we were not in this respect more successful, as we only found about the half of one skull in such a state of preservation as admitted of its being sent to London. Now I wish it to be understood that we found many skulls, but so decayed as to render them useless. In Mr. Rhind's excavations as many as five in one side of one chamber, but all as soft as loose saw-dust. At the time of Mr. Laing's discoveries, what struck me as most remarkable was the state of preservation in which almost all the skulls were.

In the whole of my excavations I have seen perhaps five times as many skulls as Mr. Laing has found altogether, and of all that number only two can, with great difficulty, be partially restored. And I now leave it for others to judge if the low wet sands of Keiss were likely to keep skulls in a better state of preservation than the dry elevated hill sides of Yarrows.

I confess I never saw the weapons found by Mr. Laing, but, in looking over his plates, almost any one who has ever seen real weapons from the kists and cairns of Caithness cannot fail without reference to the letter-press to declare that all those from the "Burial Mound," found by Mr. Laing, are very unlike weapons at all, whereas those from the other places mentioned by him as certainly point themselves out as having some similarity to ancient weapons, though it is very remarkable that with flint lying about in such abundance no flint weapon has been found. We will follow Mr. Laing in his own mode of describing the different places, and begin with I. The "Birkle Hills," which have not yet been explored, and it would have been wise in Mr. Laing to have left them unmentioned, as the only excavations he made were on the top, and showed that the place (whatever its internal structure) was used to light fires on, perhaps as a beacon. A kist at the base of the smaller hill was opened by Mr. Sang for Mr. Anderson, after Mr. Laing left, and yielded weapons very like those figured in Plate II, Nos. 4 and 5, but which Mr. Laing says came from kist No. 9.

In No. II. "Burial Mound" which, to all appearance, is natural, both externally and even after digging into it, nothing is seen to change

the first impression. On going to this mound in company with Dr. Hunt and Mr. Anderson, after Mr. Laing had left, we re-opened kist No. 1 of Mr. Laing's plan, and found some portions of a skeleton. Dr. Hunt, I have no doubt, will still remember having with his own hands dug up among other portions of the skeleton a pelvis, which has since been sent to London. It seems that if Mr. Laing's numbers attached to the plates of the crania and pelves in Professor Huxley's part of the book have any reference to his numbers on the plan of kists of the "Burial Mound," then the grave (No. 1) contained a human skeleton with two distinct and separate pelves. Now, after a knowledge of this fact, we surely cannot wonder that the weapons of the Keiss cannibals were so very rude and of such extraordinary workmanship. Seeing they had double pelves, there is nothing to hinder the belief that they had also double lower jaws; and even now-a-days I do not believe it would be considered cannibalism of a very bad kind if a Caithness *savage* extracted not only the marrow from one of these superfluous jaws, but the jaw itself.

Nor can we wonder that Professor Huxley says in speaking of this skeleton, "Bones marked No. 1 constitute the greater part of one skeleton, which is in many respects the most remarkable of all those found at Keiss." I should think so if he had only seen the whole. The Professor also adds: "There can be no doubt from the characters of the pelvis, and from other parts of this skeleton, that it appertains to a female." It is said that wonders may be expected every day. Now if it should so happen that the pelvis found by Dr. Hunt should turn out to "appertain" to a male, this curious hermaphrodite surely deserved a book entirely to itself; and nothing is more wonderful among all these wonders than that Mr. Laing should miss such a chance, as it certainly would have created a far greater sensation than his present work has done.

Further, in regard to the "Burial Mound," Mr. Laing says that "kists were found, in every instance, with wonderful regularity, at about fifteen feet apart." I have no doubt Dr. Hunt can certify that we proved the fallacy of this. Again, Mr. Laing says, "The skeletons lay on a layer of clean sand, about six inches thick, laid on the natural soil." Now we thoroughly explored kist No. 1, which had only been partially opened before, as was proved by a mass of sand and some of the covering stones of the kist, which had never been formerly removed; and after Dr. Hunt had taken out the bones, I dug about two feet under the bottom of the side stones, and still did not reach the "natural soil." Now in this case the depth of sand under the skeleton was much more than six inches. For all Mr. Laing's endeavours to enlighten us on this subject, we have reason to be truly thankful, and for none more than the following, where he tells us that "the other trench hit upon the *corner* of a circular wall"—we, in Caithness, only being a remove or two from the savages he describes, never knew before that a circle had a corner. But not having seen it, of course, it may be possible in such a building as a "chief's kist," or to savages who cannot be supposed to have known much of mathematics.

No. III. "Churchyard mound." This is as Mr. Laing describes it, a large shell mound, beside what appears to be an ancient "green cairn," but as no excavations have yet been made in the cairn itself, it would be premature to say much about it. Mr. Laing only excavated a small portion of the shell heap, but the cairn is still untouched. Before it can be said with any justice that the foundations of the cairn are super-imposed on the shell mound, the whole must be explored; and it is my opinion that, though, perhaps, some slight temporary building, such as a modern house, may have been built on the shell mound, still the walls of the original cairn will be found on the same level, if not lower than that of the shell mound. I am astonished that Mr. Laing complains of the scarcity of fish-bones in this mound, as the very first time I went there, some years ago, as well as on every occasion since, I found entire skeletons of fish of large size, though so extremely fragile that they could not be removed, and these did not at the time or since appear to me to be the refuse of food cast away by savages, as we can hardly suppose savages to be so very careful of the skeleton of a fish as to clean off all the food without displacing a single bone, and then to lay it carefully down in a midden. But it may be well to know that up till within the last ten or twelve years the fishermen in the country cast away many fish as unfit for food, which are now eaten. A curious superstition did not allow them to cast the fish away as soon as they reach the boat's side, as it was thought unlucky to cast back into the sea anything it had yielded, however useless, and under this impression these fishes were carried home, and cast into the refuse heap; and this accounted to me at the time for the entire skeletons of fish which I saw. The fish must have been placed entire in the heap, else the bones of the head and ribs would not have remained in their relative places, as they were found to be. Now, I cannot be made to believe that savages who, pressed with hunger, would break a child's jaw-bone for the sake of the small quantity of marrow it yielded, would be at all likely to throw away fish (however coarse) that must have weighed from twenty to thirty pounds or more, without at least trying what its jaw-bones contained.

The pottery found in this heap (if it really is pottery) is by far the coarsest I ever saw in Caithness; that from the cairns on the Yarrows hills is fine compared with it; the specimens are so cracked, ill-baked, and so uneven on the surfaces. It also shows little trace of curvature, that I have always doubted if any portion of it had ever formed part of a vessel.

IV. "Harbour Mound." This mound I saw after being excavated and before being filled in. All that I can say about it is that, except in the cyclopean form of its walls, it had certainly nothing at all that would show it to be ancient; on the contrary, the style of the masonry, when compared with any others through the country, unmistakeably of great antiquity, prove it to be quite modern. If the men that built the "Harbour Mound" at Keiss were contemporary with those of the earliest stone periods, as Mr. Laing believes, those who built the other cairns in the country must have been older still.

I confess we know very little yet of the structure of many of the "green cairns" of Caithness; but all those that have been explored for scientific purposes or otherwise, and in which the walls are shown, possess a character of antiquity impossible to describe, but which any tyro in the matter could at once see when compared with this "Harbour Mound" at Keiss. I do not profess to know for what purpose this mound may have been built, but that the whole of it is recent when compared with any of the mounds in the interior of the country, every stone in the walls declares. And when we find that these really ancient cairns present us with very finely finished flint weapons and perforated stone hammers of a very high finish, indeed, we cannot believe that it is to a high antiquity that the weapons described by Mr. Laing owe their rudeness. I have seen, not long ago, exact counterparts of the bone pin, fig. 53, page 35, made and worn by a race of people locally known as "Cairds"—a nomadic people, perhaps gipsies, and whose employment was to manufacture implements of horn and bone for the people of the country. The cheapness of metal spoons and pins (the manufacture of which was from bone the chief employment of the "Cairds") has for some years destroyed their trade, and all but rooted out the name.

v. The "Moorland Mound." I am really astonished that Mr. Laing did not, before rushing into print, take the advice of some person in this country, who might have hindered him publishing an account of a "Sheiling" bothy, not yet out of use above forty or fifty years, as a Moorland mound, of prehistoric date. To have remains of this sort mentioned in the same book with those of Abbeville! No wonder Mr. Laing admits that this mound is of a different character from the others, as he might, I have no doubt, have found some men at present living about Keiss who helped to build it. I can at least find men in Caithness who built "Sheiling bothies" exactly similar to Mr. Laing's "Moorland mound." "The walls being of large flag stones set on edge," are the same as are to be seen to this day in many modern buildings similarly situated, where the largest surface that any stone can be got to present is of the utmost importance in a turf building. The shells found on the floor are just such as the young women who attended their cattle in these moorlands were sure to go to the shore to gather, after they had finished their day's work, or were waiting for the return of their cows. To the present day young women, and men too, go to the shore a distance of three or four miles to gather such molluscs. The bones found were only such as were sure to be sent from home for the regular food of these girls while living in a sort of banishment in the hills during the summer. The "bench or bed" along the walls is simply the place on which the milk was set in dishes, a portion of which dishes Mr. Laing found "having a coarse blue glaze," and which he mistook for a piece of prehistoric pottery! The two large stones opposite the door in the further end of the building are the fireplace, and these stones, with the assistance of one or two more, though not so permanently fixed, were used for supporting a large pot, in which they boiled their milk for making cheese, and also saved them the trouble of carrying up to

the hills a large iron hook and chain (which very likely could be very ill-spared at home), on which pots in country houses are usually hung. The stones projecting on each side of the doorway are the foundations of a turf erection merely for shelter. It reached to the height of the walls, and was covered on the top; and in a day's walk in the interior of the country, I will now point out half a score of similar erections.

Why does Mr. Laing ignore the existence of coins found at Keiss (and of which he was aware before he left the country) under circumstances exactly similar to his own findings, though not in any of the mounds he describes? These coins found in a kist at Keiss are now in the possession of Dr. Hunt, and will speak for themselves. Mr. Laing says, under the chapter headed "Antiquity," "In using this term I do not mean to prejudge the question of absolute antiquity, for it may well be that an aboriginal tribe of savages have lingered on, little changed, in a remote corner of Britain." This "remote corner," I suppose, is Caithness, and I will much sooner admit that they still linger there, and certainly on better grounds, than I can admit the antiquity of many, if not all the weapons found by Mr. Laing.

Again, at page 41, Mr. Laing says, "These latter people were Pagans, for they burned their dead in the latter barrows, and in the earlier ones buried them in a contracted posture, etc." Now, I have only to say that this is exactly the reverse of my own experience in all the really ancient cairns that I have explored in this county.

Mr. Laing again seems to think that because there is no mark of a cross about the graves he found, they could not but belong to some period before Christianity was introduced. Now what would Mr. Laing think if a Caithness man told him that the cross is no true emblem of Christianity, but has been used by nations who never heard of Christianity?

Mr. Laing admits that the Keiss savages knew the value of flint, but that the flint pebbles were too small for use. Now I should like to know where the other savages of the county whether of an earlier or later date than those of Keiss got the flints that they fashioned into weapons so well fitted to their purpose. Because Mr. Laing himself actually found no real prehistoric weapons of stone, he, in one place, remarks that "the invention of the barb to the arrow is one hardly likely to be lost." Nor is this the case, for the oldest cairns and kists in the county that have yet been explored show that they knew the use of the barb to the arrow.

At page 61, Mr. Laing says, "to realise the position of primæval man in Caithness we must recollect that he had abundance of stone, but little wood." Now I know not on what fact Mr. Laing grounds this statement; but this I know, that in every cairn yet opened, wood can be proved to have been the principal fuel. And we also know that there is hardly a peat bog in the county in which an ancient forest cannot be shown to have existed.

The last notice I will take of Mr. Laing's book is, of what he considers a most interesting discovery, at page 50; he says, "The most interesting fact is the discovery of the 'Alca impennis,' which is now extinct in Europe." Now why should this bird help in any way to

fix the high antiquity that Mr. Laing claims, when it is known to have been abundant in these northern counties till very recently? I will quote a few lines from Sir Wm. Jardine's work on British birds in support of this statement: "Very few specimens have been obtained or seen; that in the British Museum, and long unique as a British specimen, was procured for Mr. Bullock near Papa Westray. Some one or two specimens have been seen. One obtained by Mr. Stevenson off St. Kilda, which afterwards, we believe, escaped; two are recorded as picked up in England, but evidently under peculiar circumstances; and one is mentioned by Mr. Thompson to have been taken in 1834, off the coast of Waterford in Ireland. In the old account of a voyage to St. Kilda in 1697" (not far from the same date as the Keiss coins), by "M. Martin, gentleman," we have this account. "The sea fowls are first the gair-fowl, being the stateliest as well as the largest of all the fowls here, and above the size of a Solan goose, of a black colour, red about the eyes, large white spot under each eye, a long broad bill, stands stately, his whole body erected, his wings short, he flyeth not at all; he lays his egg upon the bare rock, which, if taken away, he lays no more for that year. He is palmipes or web-footed, etc." It would seem from this that this fine bird was by no means scarce at the very time that the Keiss savages were burying their savage friends in the Keiss sands with coins of William the Third in their graves.

The bones of the great auk no more prove the antiquity of these mounds than do the bones of the red deer or any other animal still existing, but getting comparatively very scarce.

The fact seems to be that at Keiss some real weapons of antiquity were found, or at least very good imitations; but the whole thing is now so mixed up together as to render any of the things in a scientific inquiry utterly useless.

As it is very possible that many persons in England may not know what is meant by a Sheiling Bothy, I will, with the view of throwing a little more light on the *importance* of Mr. Laing's discoveries, endeavour to describe them, and what was their use. Before the introduction of sheep, if the grass of the moorlands and hills was to be utilised at all, it could only be by feeding black cattle. At that time there were large tracts of moorland without a dwelling-house on them. And to the nearest of these that offered good pasturage, the cows belonging to the several surrounding tenants were driven in summer. On some spot, near a stream, and frequently beside an ancient cairn from which stones could easily be obtained for the foundations of the structure, was built the bothy of the sheiling. They are all as nearly as possible like that figured by Mr. Laing, at his "Moorland Mound". In some cases these huts or bothies had a "but and a ben", or was, in other words, divided into two apartments. These huts were the dwelling-place of a young woman from each farm-house, where they lived to the number of three or four or more, according to the number of farmers who had cows at the sheilings. At these bothies the cows were milked and the calves fed, a girl milking a cow at one side and the calf sucking at the other. And it was necessary before the cow would give all her milk that the girl should change sides with

it now and again. The cows being milked, the milk was set inside generally in wooden dishes, and afterwards made into butter and cheese. After the cows had remained sufficiently long at the first sheiling to make the pasture bare, they were moved on to the next, and the "yeild" or young cattle took their place on the first sheiling. And in this way they kept moving on from sheiling to sheiling till, by the time the corn crop had been secured, they had reached the point at which they started, having made a circuit of the whole moors.

But, in digging out this "Moorland Mound", had Mr. Laing made a thorough search of the whole place, I have no great doubt he might have found some real weapons, as almost all the "sheiling bothies" I know are built on, or alongside, an ancient cairn. The facility with which stones could be got, and smooth rich pasture that surrounded these cairns were the chief inducements that led to the selection of such spots for the erection of the sheiling bothies. Plenty of water was another inducement; and though I have never seen Mr. Laing's "Moorland Mound", if it is not built on a small bend of a "burn" or moorland stream, there is certainly a good well near it.

Many Caithness men are, I believe, prejudiced against Mr. Laing's book, for trying to attach to their progenitors the stigma of cannibalism. Now, I hope Mr. Laing will believe me, when I say that, so far as I am concerned, I am quite willing to assist Mr. Laing or any other gentleman who may wish to make further inquiry into the matter, and will do all in my power to prove that cannibalism existed as late as he pleases, if he only will produce the proofs. If it could be proved that our forefathers were cannibals, I am so far from thinking it any degradation, that I would feel proud to establish Mr. Laing's theories, as a proof of the progressive development of our countrymen who now, many of them, fill important situations in many parts of the world.

I may just add that a good deal of discussion has taken place here regarding the meaning of the term "Birkle Hills". "Birkle" is a term in every-day use here, and is a corruption of brittle, and may have reference to the brittle state of the half-burned stones that nearly cover these hills.

The PRESIDENT then resigned the chair to Dr. Charnock while he read the following paper:—

On the Keiss Graves. By JAMES HUNT, Ph.D., F.S.A., Pres.A.S.L.

As my name has been mentioned in connection with Mr. Laing's recent excavations in Caithness, I feel it advisable to lay before the Society a brief statement of the part I have taken in this matter.

On passing through Wick on my way to the Zetland Islands, I called on our Local Secretary, Mr. Joseph Anderson, who was engaged in making some explorations on behalf of the Society, and I was by him introduced to Mr. John Cleghorn, who wished to speak to me respecting what he believed to be Mr. Laing's erroneous conclusions. Mr. Cleghorn asserted that he could prove the human remains sent to

London to be those of shipwrecked mariners. I then assured Mr. Cleghorn, that if he would submit his views, with the facts on which they were based, to our Society, we should be ready to give him the same attention we had done to Mr. Laing, who so kindly introduced the subject to our notice.

I then proceeded on my journey, but the next mail brought me an intimation from Mr. Anderson, that there was a great wish amongst some of the people of Caithness that I should personally examine these so-called prehistoric remains on my return journey. I was further informed that these wishes had been made known to the proprietor of Keiss Castle, Major M'Cleay, and he had expressed his approval and given his consent. Much discussion and some amount of annoyance had however been caused by the promulgation of the theory respecting the cannibalism of the former inhabitants of Caithness; Major M'Cleay, therefore, expressed a hope that I should be able to carry out the object in view by merely opening one of the graves in the burial mound. I hesitated for some time before I accepted this proposal, feeling that the discovery of the Keiss graves belonged to Mr. Laing, I was unwilling to do anything which would appear at all disrespectful to that gentleman. On consideration, however, I felt that Mr. Laing, in his paper to us, had made out such a good case, that further investigations would only confirm his conclusions, and I consented to devote a day to an inspection of some of Mr. Laing's work.

After visiting the antiquities near Thurso, and especially those at Dunnet, I visited in company with Messrs. Anderson and Shearer a large number of cairns which had been opened in the interior of the county. I had the advantage of seeing others in the course of exploration, and others which still remain for examination. Having thus gained a general knowledge of the ordinary kind of antiquities in Caithness, I went, in company with Messrs. Anderson and Shearer, to examine the Keiss graves and other objects of interest described by Mr. Laing.

After a short inspection of the churchyard mound, I proceeded to what Mr. Laing has described as the burial mound, where, through the kindness of Mr. Mackenzie, the farm steward of the Keiss Castle estate, men were waiting ready to do any digging required.

Mr. Laing in his paper to us stated that the shape of this so-called burial mound "is so far obliterated that it is not easy to assign its precise breadth and height, and unless to an antiquarian eye, sharpened by the knowledge that kists had been found, the existence of a mound at all would escape notice." I can so far verify this statement as to affirm that I made inquiries for the "burial mound," and I heard with some amazement that I was standing on it. I inquired where the mound began at one end and terminated on the other, and I was told that there were clear traces of it for about half a mile. I was at once sceptical as to the artificial formation of this so-called burial mound, and said that I should have taken it for the remains of natural beach. My companions, however, were both positive as to the artificial character of the mound for at least three hundred yards,

and they said I could at once proceed to satisfy myself on this point. Mr. Laing informed us in his paper, that "kists were found in *every* instance with wonderful regularity at about fifteen feet apart in the central line of the mound." Mr. Anderson, on the authority of Mr. Sang (Major M'Cleay's late gardener), had also given his adhesion to this theory, and assured me that I could at once come on a kist if I allowed the men to dig at a distance of fifteen feet from either of the graves opened. Mr. Laing had computed this mound to contain from sixty to seventy graves on this theory, and as many as two hundred "if it extended, as there is reason to believe, for half a mile."

As only nine or ten of these skeletons had been dug up, I anticipated no difficulty in finding at least one to bring back for our Museum, I therefore measured off the distance, and the men set to work with the following result. On digging up the top layer of green turf there was a quantity of clean white sand about two feet in thickness; we then came to some beach pebbles, and I was told these were the stones covering a kist, and that all the others opened were just of this character. It still appeared to me that these stones had been deposited by natural agency nor could I detect any signs of artificial agency in their position. I was however rebuked for my doubts, and I was told that in a few minutes my scepticism should be removed. The stones were all thrown carefully out, and every precaution taken in removing them; but when this was done, we did not come to a kist, but to another layer of sand. Down the men dug through this sand, but still no kist. Occasionally our hopes revived on coming to another layer of stones, but only to be again disappointed. Having thus dug far below the position in which any of the so-called kists had been found, I decided that it would be advisable to cut a trench along the central line so that we might come on the kists. The fifteen feet apart theory, therefore, had thus proved to be erroneous—at least in one case, and further digging showed that it was erroneous in more. In cutting the trench I called my companions' attention to the fact that the layer of stones which they assured me was the covering of the kist continued all along the mound with wonderful regularity, and the section I thus laid open showed not the slightest trace of artificial formation, but ample indication of the action of water and wind in the rolled beds of beach stones and white sand. The trench after a time extended such a length that I ought to have met with at least two kists, but I found not a trace of any.

Greatly disappointed at such an unexpected result, I determined to at least examine the structure of some of the "kists" opened by Mr. Laing, and proceeded to open kist No. 1, out of which Mr. Laing had taken the skull, pelvis, and the greater part of the skeleton. It was from this kist the supposed female skull was taken of which Mr. Laing remarked in "No. 1, the low attributes of the type are carried to such an extent as to give it a decidedly Negro aspect, and make it in the opinion of some high scientific authorities who have examined it, the worst European skull they have ever seen with the exception of that of the Neanderthal."—*Journal* A. S. L., v. 3, p. xxxiv.

I found the kist composed of beach stones resting on end in fine white sand and covered with other beach stones. There was no bottom to this kist or to any of the others opened. There is, however, nothing very peculiar about these cairns, for similar ones in nearly every respect are found in other parts of the coast of Scotland. On this subject there recently appeared an account of similar kists being found at Stonehaven in Kincardineshire. This account* says :—

"Now and again when any repair of the streets in Stonehaven has been made, ancient stone coffins have been found in different localities; principally, however, above the Cross, in the Old Town; and this week they have been got almost at the surface of the street. In one case the hair were adhering to the skull of the coffin's occupant; in another the teeth were entire, and quite pure, and as white as chalk; the spine was quite whole, and the ribs adhering to it, and quite fresh. When these bodies had been buried the corpse must have been either cut or doubled up, for by the appearance of the bones they had belonged to tall individuals, and the coffins or cists, which were composed of slabs of slate of ten to fifteen inches long, set on edge, were only about four feet four inches in length; and, strange to say, there were no bottoms. Believing that the villagers of the fishing town of Cowie have a Danish origin, we can suppose that these are relics of some ancient Danes, and have lain in their quiet resting-place for at least 800 years."

The contents of the kist however were more surprising to me than its formation, for to my surprise I took out the pelvis, femur, humerus, and vertebra now on the table. I inquired if this kist had been touched since Mr. Laing's diggings, but was assured that it had not. Mr. Laing says in his paper, "I obtained the entire skeleton of No. 1." How this confusion can have arisen it is not my province to decide.

Having thus sufficient evidence that nature had played a chief part in the formation of this burial mound, there still remained to be explained the existence, with these skeletons, of rude stone weapons. These weapons had been found not only by Mr. Laing but especially by Mr. Anderson. Immediately, therefore, on reaching London, I made, in company with Mr. Laing and our Curator a complete examination of all the weapons found in the burial mound. Mr. Laing very frankly admitted that in not one of these evidences was there any proof of human workmanship, and that he should never have taken them to be stone implements had he not found them with the skeletons. Mr. Laing has since well remarked,† "No drawings can give an adequate idea of their extreme rudeness;" and that "the stone weapons are all of the native sandstone or common beach stones of the district. They are for the most part rounded or fractured by nature, or by a single blow, with the least possible adaptation by rough chipping. The hammers or celts are almost all natural stones from the beach."

Although Mr. Laing had "no hesitation in assigning the burial mound and kists to the early stone period," I came to an entirely

* From "Aberdeen Free Press".

† "Prehistoric Antiquities of Caithness", p. 40.

different conclusion. The mere accidental fact that such stones were found with the skeletons I regard as of little consequence, considering that such stones as those exhibited by Mr. Laing from the burial mound are quite common on the beach.

But a more serious difficulty remains to be explained in the fact, that Mr. Anderson had sent us since much better formed implements taken from graves in the same mound. It has been incorrectly stated that these weapons have been given to the Museum of Scottish Antiquaries, and I take this opportunity of correcting this statement. I may also here observe, that an illustration of one of the implements attributed by Mr. Laing to the burial mound was really found in the shell mound. In plate I of Mr. Laing's work figures 4 and 5 are said to have come from kist No. 9, while, in reality, they came from a kist at the Birkle Hills ; and a specimen from the shell mound, No. 5, is said to be one half the natural size, while, in reality, it is about one third. In plate II, figures 2, 3, 4 and 5 are all from this same kist 9, and the articles are now on the table.

Much now rests on the genuineness of these weapons, and after much inquiry I have arrived at the following important facts. Mr. Anderson did not see one of them found himself, but is dependant on Mr. Sang for his facts. He believes that Mr. Sang found them himself, and places implicit confidence in his veracity. Mr. Sang has, however, a few days ago informed me, that he did not find one of these now exhibited, and that the only one he did find—and gave to Mr. Anderson—was a lance or spear-head in the harbour mound. He says that all these weapons were given to him by the workmen employed, and that he had no reason to doubt their words as to the position in which they were found.

Having thus traced the finding of these implements to certain workmen, I have not thought it worth while to pursue these investigations any further. The implements can now be allowed to speak for themselves. This, too, completes my own account of this subject. Although I visited the Birkle Hills, shell mounds, and harbour mounds, I am unable to offer any opinion as to the nature of Mr. Laing's researches amongst these interesting relics. It is no doubt much to be regretted that Mr. Laing was unable to complete his investigation of these remains. I have purposely confined my remarks to what Mr. Laing considers to be the most important part of his investigation.

I will now only add, that although Mr. Laing's speculation as to the nature of the burial mound, and the stones found, is in my opinion wholly erroneous, yet we are under great obligation to that gentleman for exciting our interest in the prehistoric remains of Caithness. Although, therefore, we may be obliged to relinquish the fascinating theories he has promulgated in reference to the Caithness aborigines, we may yet have eventually to thank him for inducing other inquiries which may throw light on that most interesting subject.

On the motion of Dr. CHARNOCK thanks were given to the authors of the respective papers.

Dr. HUNT said that Mr. Laing had been invited to attend the

meeting of the Society on that occasion, and the following note had been received from him promising to be present, but he regretted that illness had prevented him from attending.

"6, Kensington Gardens Terrace, 22nd March.

"DEAR SIR.—I shall make a point of attending on the 3rd April, unless some unexpected engagement should intervene to make it impossible, which I do not anticipate. By that time I hope I shall have recovered my voice and be able to take a part in the discussion.

"Yours very faithfully,

"(Signed.) "S. LAING."

Mr. C. CARTER BLAKE said they had had five papers read relating to the remains found in Caithness, some of which touched on the osteological characters of the remains that had been laid before the Society by Mr. Laing. Several conclusions were to be drawn from them, which depended, however, on the value of the facts announced by that gentleman. The skeletons found in the burial mound were said by those who had discussed the paper on a previous occasion, to be allied to those of various individuals of different races existing at the present day in Scotland, in Northern Africa, in Australia, and in that part of the globe inhabited by an Indo-European race. The facts as stated by Mr. Cleghorn, Mr. Anderson and others, are that the human remains found by Mr. Laing in Caithness, and supposed by him to indicate the existence in that part of Scotland of a prehistoric people, were those of cast-away sailors of various nations wrecked on that dangerous shore. These theories contrasted much. Mr. Blake ridiculed the notion that the skulls in the burial mound, especially that of the "ungainly female" from kist No. 1, indicated a peculiarly low type of humanity, or that the form of the pelvis exhibited was that of a Negro; and he considered the skull, numbered 1 in Mr. Laing's book, and supposed to be a most degraded European skull, must go to the same limbo as the Neanderthal skull, with which it had been compared. He commented in the same tone on the discovery of a second pelvis in the kist No. 1, observing, that whether male or female, a second pelvis belonging to one skeleton was a remarkable fact, indicating a very peculiar formation in the prehistoric races. It had been said that Mr. Laing's specimens had been too imperfectly preserved to be correctly described; but he denied that there had been any want of care in their preservation, and as to the pelvis on the table, it had been under his (Mr. Blake's) charge since it was taken out of the grave by Dr. Hunt. There was better evidence that that pelvis was associated with the skulls and bones before shown to the Society by Mr. Laing, than in the case of the other bones, which were said to have been taken from No. 1, and were represented to mark a low and degraded form. He thought, indeed, there was not sufficient evidence that any of the bones that Mr. Laing had brought from Caithness were taken from the places from which they were said to have been derived. All the skeletons and skulls and pelves appear to have been mingled together in absurd disorder. Mr. Laing did not himself seem to know to what they belonged and where they came from,

and there were no accurate facts before the Society on those points. He regretted that Mr. Laing was not present to give some explanation respecting the inconsistencies and anomalies that had been noticed in his book, so as to reconcile them with the facts had been stated. With respect to the implements; when Mr. Laing was asked about those from the burial mound, certain chipped flints and round boulders were pointed out by him as those found in the chief's kist, and he thought that the fact of their being found with a skeleton was evidence that they were implements and weapons. As to that kist the accounts of it from various sources had greatly differed since the day that the remains said to have been taken from it were exhibited by Mr. Laing.

Mr. HIGGINS pointed out several inconsistencies in Mr. Laing's book with the statements he had made at other times. In page 9, for example, Mr. Laing said that he was personally responsible for the actual discovery of every relic and for the description of the positions in which they were found. It seemed, however, very doubtful whether he actually saw *in situ* those said to have come from the burial mound. What Mr. Laing had said to Dr. Hunt respecting the character of the supposed implements found in the kist was contrary to the statement in page 8 of his book, that several other stones had been found in the kist, but that he had rejected everything that had not decidedly been made by man. With regard to the second pelvis found in the kist No. 1, he did not think the finding of a second one there so very extraordinary, for kists were sometimes opened that had two skeletons inside, and that might have been the case with the kist in question. The pelvis on the table was in Mr. Higgins's opinion that of a female; the long bones which had been found by Dr. Hunt with the pelvis confirmed that view, and it was very remarkable that out of the human remains found in seven of the kists, five of them should have been those of females. The account given by Mr. Laing of the places where the bones came from he considered very vague and unsatisfactory.

Dr. CHARNOCK said the name Birkle was probably derived from *byrgen*, *byrgels*, a burial-place; a word found in several places in the Anglo-Saxon versions of the Gospels and Pentateuch; etymologically connected with *beorh*, a hill, heap of stones, place of burial, a *burrow*, *barrow*, and *birgan*, to bury.

Dr. HUNT pointed out some further incongruities in Mr. Laing's book. In page 40 it was stated that the stone implements were "for the most part rounded, or fractured by nature or by a single blow;" but he (Dr. Hunt) defied any one to say whether a stone that had been fractured by a single blow had been so broken by nature or by art. With respect to the discovery of the second pelvis found in kist No. 1, which there could be no doubt was the same kist indicated by Mr. Laing, he repeated that he found the pelvis on simply examining the kist, and came upon it with the greatest surprise. Mr. Blake was not correct in saying that Mr. Anderson, Mr. Shearer, and Mr. Cleghorn had stated that all the skeletons in the burial mound were those of shipwrecked mariners; but they agreed in considering

the mound to be a naturally-formed hill, and that it afforded no evidence of the antiquity of man. With regard to the implements, little confidence could be placed in them, as it seemed to be not really known where and by whom they were found. It was said that a more perfectly formed implement associated with a skull found on the burial mound was in the possession of Professor Ogston of Aberdeen, and he had been written to requesting him to exhibit them to the Society, but he had not done so, therefore that evidence could not be relied on. Dr. Hunt observed, that though Mr. Laing's book had been rather severely handled, it must be satisfactory to him that Professor Owen had spoken of his researches in Caithness as the type of archæological investigations. Thus the whole of Mr. Laing's discoveries and his description of them, promised to become a part of the scientific literature of the country, and it was the duty of that Society to submit them to a searching examination, and to correct any erroneous conclusions that might be drawn from Mr. Laing's book. He regretted that Mr. Laing had not been present to reply to the objections that had been brought forward. He could only say, that in the remarks he had made, he had not been actuated by a party spirit, nor did he entertain any repugnance to the idea that the ancestors of the Northern Britons had been cannibals. He felt it impossible, however, to accept Mr. Laing's facts, and he hoped the Duke of Portland would kindly give permission to that Society to complete the excavations in Caithness, that this subject would be followed up, and that the subject would be brought before the Society on some future occasion.

Mr. C. Carter Blake, in reference to the opinion expressed by Mr. Higgins, that most of the skeletons were those of females, objected to the foundation of such an opinion on the length of the bones or the shape of the pelvis now on the table.

Mr. Higgins said he had carefully measured the pelvis, and that he thought the measurements as well as the general appearance of the bones warranted the assumption that they were those of a female.

The meeting then adjourned.

April 17th, 1866.

James Hunt, Esq., Ph.D., F.S.A., F.R.S.L., President, in the Chair.

The minutes of the previous meeting were read and confirmed.

The names of the following gentlemen, elected Fellows of the Society since the last meeting, were announced :—W. C. Bonnerjee, Esq., F.G.S., 108, Denbigh Street, Belgravia ; S. J. Da Costa, Esq., 7, Orsett Place, Westbourne Terrace, W. ; Hon. S. Davenport, Adelaide, New South Wales ; John Moore, Esq., Adelaide, New South Wales ; Robert Peel, Esq., Adelaide, New South Wales ; John Towers, Esq., Berkeley Villas, Loughborough Park ; H. Victor Martin, Esq., M.R.C.S., Billington House, Surrey ; T. A. Wise, Esq., M.D., Rostellan Castle, Cork, Ireland ; James Champley, Esq., M.D., 8,

Albion Place, Westbrough, Scarborough; M. Edouard Villin, East Greenwich; J. D. Poole, Esq., M.D., 3, Great Queen Street, S.W.

The following donations were announced:—Apocryphal New Testament (J. Fred. Collingwood, Esq.); Complete set of Reader Newspaper; Hickman on Cancerous Bone (T. Bendyshe, Esq.); Sketches of excavations at Belas Knap, Gloucestershire (W. L. Lawrence, Esq.)

Dr. Mackenzie Skues gave an account of two large rolls of Hebrew manuscript which came into his possession in January last on the burning of a village near Aden. They were taken from a church, and he believed one of them was a copy of the Pentateuch and the other the book of Genesis. He could not himself determine the contents of the manuscripts, and he consented to allow of their remaining in the care of the Curator for a short time that they might be examined.

Thanks were given to Dr. Skues for bringing the manuscripts for exhibition.

A paper, of which the following is an abstract, was read by Mr. Bollaert. [The paper will appear at length in the *Memoirs*.]

Contributions to an Introduction to the Anthropology of the New World. By W. Bollaert, Esq., Hon. Sec.

The author, in embodying his experiences of the red man, noticed the erroneous statement which had been made, that the physical configuration of American natives was the same all over the continent. This was not quite the case, even as regards colour; while as to form, feature, physical and mental development, there are marked differences and peculiarities, resulting from causes investigated in detail by Mr. Bollaert. He gave minute descriptions of the various theories which had been propounded to account for the population of America, especially of the known facts regarding the colonisation of the northern parts by the Icelanders in the tenth century. He condemned the theory which Rivero and Tschudi had advocated, that such originators of early American theocracies as Quetzalcoatl of Mexico, Bochica of Bogotá, and Manco Capac of Peru, were Buddhist priests. Mr. Bollaert's own researches on this subject were not confirmatory of this hypothesis. The native traditions of the aborigines were not confirmatory of this theory of monogeny. The author gave a minute description of the materials he had been able to collect concerning the red man, before and after the discovery of America by Columbus, adopting as examples the inhabitants of the Russian possessions in America, British North America, Newfoundland, the United States, West Indies, Texas, Mexico, Central America, New Granada, Quito, Brazil, Chile, the Pampas, and Peru. In his general retrospect of the subject, he said that, as we find about the same general geological formations in the New World and in the Old, it is natural to conclude that the continent of America has an equally ancient date, and has gone through analogous changes. The Old World has its greatest length from east to west; the New, north and south; the great mountain ranges take opposite directions, and the fossil remains have great peculiarities. The native population of America at the period

of its discovery he estimated as over 100,000,000; at present there may be from 10 to 11,000,000. They are said to have some 400 languages, and over 2,000 dialects. He considered the time required for the evolution of each of these to have been vast. He gave a brief conspectus of the distribution of the chief races of man, pointing out in what way they differed from the red men of the New World. He commented on the evidence which had been afforded of ancient human remains at Guadaloupe, in the West Indies (probably recent), the Florida coral reef, Natchez on the Mississippi, and the Brazilian bone-caves. Pottery had been found in Ecuador, under circumstances which showed that it had been submerged for an unknown time under the sea, and again upheaved. He pointed out some important differences between the physiological characters of the white and red man, and concluded by affirming that his inquiries into the subject of species and varieties led him to abandon the unity or monogenistic view, for the plurality or polygenistic theory of separate creations.

The PRESIDENT proposed the thanks of the Society to Mr. Bollaert for his very able and elaborate paper on such an interesting and complicated subject. The motion was unanimously agreed to.

The Rev. DUNBAR HEATH said the paper displayed a vast amount of learning, and contained much valuable information. It could not be expected that he should follow the author of the paper through the many details he had brought forward; but he would confine himself to the opinion expressed in the last sentence respecting the origin of man in the New World, to which point the general bearing of the paper was directed. Four hypotheses had been advanced to account for the origin of man in America. It had been supposed, in the first place, that the original inhabitants came from Asia by immigration on the north-west of the continent. In the second place, it was conjectured that they came from Asia by sea; thirdly, that they arrived from Africa, in that part of South America nearest to the African continent; and in the fourth place, it had been conjectured that America was the remaining portion of a vast continent now submerged, and that the inhabitants were the descendants of a people who formerly occupied the country when America was connected with the Old World. Mr. Heath objected to each of these hypotheses. He objected to the supposed African origin of the red man, on account of his colour and general physical appearance. The same objection, though in a lesser degree, would apply to the assumed Asiatic origin by immigration from the northern parts of Russia. In considering the probability of America having been peopled by persons arriving there by sea, they ought to bear in mind that those assumed people would belong to remote antiquity; they would belong to the age of the mammoth in Europe, and of the mastodon in America—a period when the means of locomotion must have been very limited, and ships unknown. When, therefore, the inadequate means of making a sea voyage at that early period were considered, he thought that hypothesis must be rejected. With regard to the hypothesis of a submerged continent of Atlantis, he was inclined to think it presented

greater probability than any of the other three. It was known that enormous revolutions in the crust of the globe have taken place in geological ages; and it was possible that there might at one time have been a junction between America and the land of the Old World. But, assuming that to have been the case, what kind of people would have been found in America when discovered by Columbus? The Europeans are said to have been descended from the Aryans, and that the American Indians do not belong to that race. But the period of the assumed separation of the New World from the Old was long before the time assigned to the Aryans; therefore, in any case, the antiquity of the people must have been enormous. When, however, the remarkable distinctions of type between the fauna and flora of America and the Old World are considered, and also the great distinctions in the physical characters of the men; when such great divergencies and distinctions were found to exist, he thought the weight of evidence was against any of the four hypotheses he had considered, and was in favour of the hypothesis of a separate origin of man in various parts of the world.

Mr. Mackenzie alluded to the statements of the American Commodore Maury, of the great facility of sailing across the Pacific to the Peruvian shore. This might show the possibility of the peopling America from Asia, and that civilisation might have proceeded from the same quarter, raising and advancing the indigenous races already existing there. The wonderfully advanced state of the South Americans under the Incas when first discovered, showed that the civilised race could not be a low race; and, had progress been allowed, they might have become a valuable race of mankind. At the same time, he considered it not impossible that South America might be the submerged island of Atlantis spoken of by the ancients. It was known how careful the ancients were of their traditions; and the indications in the works of Plato, and of other Greek writers, of a remote island of Atlantis, might have had a foundation in truth. The stratification of the country towards the east coast of Brazil, also tended to bear out that opinion. With regard to the hypothesis of immigration across Behring's Straits, he thought the hypothesis of immigration need not be limited in that direction; for, at distant periods previous to many geological changes, it was possible that people might have come from regions now unknown to us, and the Esquimaux might have come across the North Pole. He thought it proved, however, from the accounts given by Mr. Squier and other investigators, that the civilisation of America must have come from the South, and not from the North, there being evidence from articles found up the rivers that flow into the Gulf of Mexico that early trade must have been carried up those rivers. With regard to the comparative age of America. As the animals of the existing fauna are generally smaller than those of the Cis-Atlantic continents, it seemed to show that, in accordance with the Darwinian theory, such species had not existed for so long a period in America. Mr. Mackenzie alluded generally to several of the points mentioned in the paper, and expressed the hope that, by the aid of the Maya alphabet discovered by Mr. Bollaert, and

by other discoveries that have been recently made, a solution would be found of the difficulty of accounting for the origin of the red man in the Old World, a race emphatically indigenous to the soil of America, but subject to many foreign influences at a very remote period.

Mr. C. Carter Blake, adverting to that part of the paper referring to the osteological characters of the South American Indians, observed that there are less than six complete South American skeletons in Europe, and the bones were scattered, and not adequately described or figured. There were, therefore, scarcely any facts on which it would be safe to pronounce an opinion; and it could not be said whether the osteological characters do differ from those of the inhabitants of the Old World. The same remark applied also to the supposed differences in the form and character of the brain. The South American brain figured in Nott and Gliddon's *Types of Mankind*, was represented on a method so different from the usual manner of figuring the brain, that it was not comparable with the brain of any skull in the Old World. In the generalisation of the form of skull of the inhabitants of North America and South America, it had been shown by Retzius that in the eastern flat country of the latter there is a race of men with skulls more or less elongated, while in the western mountainous district, with the exception of the Aymarás, there is at present a short round-headed race. That was said to be the general result in South America; and in North America the results were found to be more or less the same. In the general conclusions drawn from the varied researches of the author of the paper, he said that it required courage to ponder on the origin of man, and to state results in opposition to the opinions generally entertained. But he (Mr. Blake) considered that an anthropologist in 1866 should require no artificial stimulus to inspire his courage to ponder on the origin of mankind. Scientific men, if they had opinions worth uttering, should not be afraid to divulge them. They must take care, however, in departing from the monogenistic theory, and substituting for it the polygenistic hypothesis, that they did not get involved in equal difficulties. The polygenistic hypothesis was as vague and unsatisfactory as the monogenistic one, and was in itself essentially vague. In considering the probable origin of the red man of the New World, he thought the theory of development ought to have been considered. All such speculations were, however, very unsatisfactory; and he hoped that the word creation would be eliminated from the vocabulary of anthropology. It was difficult for the student of physical science to conceive the meaning which should be attached to the word "creation", on which modern science did not appear to throw much light. Mr. Mackenzie had referred to the passage in Sheridan's comedy, where the beefeater uses a phrase of Shakespeare's, and then excuses himself on the ground that it was a mere accidental coincidence, and that Shakespeare had unintentionally used the quotation before him. Now, *pereant illos qui ante nos dixerunt* was a very good rule, and one on which Mr. Mackenzie had taken care to act. Mr. Blake was surprised to hear the opinions of Buffon, published in 1760, reproduced that evening, as to the inferiority of the fauna of America compared with that of the Old World. That statement had long since been

contradicted, for there were hundreds of instances in which the animals of America were of larger size than in the Old World; among insects, indeed, that was remarkably the contrary. The statement was neither true nor new. He thought the Society were much indebted to Mr. Bollaert for the facts he had stated as a contribution to the anthropology of the New World; but he hoped it would be long before they agreed to generalise respecting the origin of a population until more was known of what it is composed.

Mr. BOLLAERT, in his reply, expressed satisfaction that Mr. Heath agreed with him in his general conclusions. He did not concur with Mr. Mackenzie in the suppositions he had advanced, especially as to the silting up of the ground towards the Cordilleras, for the *detritus* from that mountain range had moved in the opposite direction. With respect to the Maya alphabet, he said he should shortly lay the results of some further investigations on the subject before the Society; and he hoped next year also to lay before them an examination of the *Codex Americanus* of Dresden, also of a similar one in Paris. With regard to the remarks of Mr. Blake, he observed, that when he (Mr. Blake) first saw the skeleton of the South American Indian now in the museum of the Society, he had expressed great delight, and said it exhibited great differences from any known type. He had, however, not laid much stress on that point in the paper, but had only said that we are on the threshold of discovery as to the anthropology of the New World, and that he must leave it to the giants of science to determine the value of peculiar osteological structure and physiological characteristics. Mr. Blake had already done much to advance the science of anthropology, and he hoped he would do much more.

A paper by Captain BURTON, on an *Hermaphrodite from the Cape de Verde Islands*, was then read. [The paper will appear at length in the *Memoirs*.]

The subject was eight years of age, and the appearances presented led Captain Burton to infer that it was essentially a female.

The PRESIDENT said that was the first paper the Society had received from their Vice-President, Captain Burton, since he left England, and he hoped they should soon have more. He understood that the case mentioned was a somewhat extraordinary one. He said he had to make two announcements of considerable importance. The Council had that day decided as to the promotion of the formation of local Anthropological Societies; and in a few weeks an Anthropological Society would be formed in Manchester. The Council had also made arrangements for keeping the Fellows of the Society informed of their proceedings, and that abstracts of what took place at their meetings would be forwarded to each of them with a copy of the *Reader*. A general circular would also be issued in the course of a few days, calling on the Fellows to propose members for election, and urging them to provide papers to be read at the next meeting of the British Association.

The meeting then adjourned.

May 1st, 1866.

James Hunt, Esq., Ph.D., F.S.A., F.R.S.L., President, in the Chair.

The minutes of the previous meeting were read and confirmed.

The following new Fellows were announced as having been elected since the last meeting:—William Donald, Esq., 69, Regent Street; Frederic A. B. Craufurd, Esq., Capt. R.N., 41, Claverton Street, Pimlico; James Smith, Esq., F.R.C.S.E., Southwick, Dumfries; Henry Pratt, Esq., M.D., Hampton Court, Hereford; John Forbes Robertson, Esq., Mountfort House, Barnsbury Square, N.; Jennings Holgate, Esq., Penton House, Staines, Middlesex; Captain W. H. Stewart, 3rd New York Cavalry, Golden Cross Hotel; W. B. Kesteven, Esq., F.R.C.S., Manor Road, Upper Holloway.

Local Secretary.—R. Austen, Esq., F.A.S.L., Rio de Janeiro.

The donations received were announced as under:—Owen, Comparative Anatomy of Vertebrates; Nichol, Geology of North of Scotland; McCosh, Examination of J. Stuart Mill's Philosophy; Ditto, Induction of the Mind; Marshall, Index to Herald's Visitations; Palæontographical Society's Transactions, and other works (T. Bendyshe, Esq.); Polyglott Lexicon (Dr. R. S. Charnock); Garbiglietti, De una singolare e rara anomala dell' osso jugale (Dr. Barnard Davis); Thurnam on the weight of the Brain (the author); Engraving of Botocudo Indians (K. R. H. Mackenzie, Esq., F.S.A.); Skull from Quiloa (Dr. F. Skues).

The President announced that the catalogue of the Library of the Society was in preparation, and that all books presented before the end of the session would be incorporated in it.

Mr. C. Carter Blake made some remarks on two skulls on the table, one exhibited by Henry Prigg, Esq., jun., and the other presented by Dr. Skues. The skull presented by the latter had been received from Dr. Harron, R.N., who thought it had been brought from Dahomey, but it had since been discovered that it was marked Quiloa, and he believed it came from the Zanzibar coast. That opinion he (Mr. Blake) believed to be correct, as the incisor teeth were deeply filed, in the manner prevalent at Zanzibar. At Zanzibar the practice of filing the teeth was very common among the Negroes; and in most of the skulls that came from that part of Africa the teeth were more or less filed. In the specimens on the table all the incisors were filed to an enormous extent.

The following papers were then read:—

On Hindu Neology. By Major Samuel R. I. Owen. Abstract. (The paper will appear at length in the *Memoirs.*)

The author called attention to the efforts at present being made by the Hindus to free themselves from the mental slavery of superstition. The same strategic ground, astronomy, has been taken up by the

more advanced Hindus as was used as the battle-field by Europeans some years ago. In 1862, Major Owen was present when a paper was read at Benares, before a society got up by, and exclusively composed of, Hindus. The society amounted then to sixty-four members. The author of the paper, Pundit Bapu Deva Sastri, a Maharatta, is Professor of Astronomy, Mathematics, and Sanskrit at Benares. The object of the paper was to show the astronomical errors in their ancient Scriptures, the Sastras, comparing what is there written with the established facts of science, and calling especial attention to the procession of the equinoxes, not there taken into account, and the results that arise in the course of long periods by the computation of time, when this movement of the heavens is not attended to; and how the fasts and festivals have thus been made to fall at wrong seasons. Major Owen gave the whole paper at length, with a view to show that the author's opinion was distinctly given that the established facts of astronomical science were irreconcileable with their ancient holy books, the Sastras, although he, as a worthy follower of Brahma, was most anxious to conciliate and please the gods. He concluded by pointing out that the Hindu race was essentially advancing in intelligence, although at present the two races (Hindu and English) do not think in the same channel. If a thought could be conceived to have two ends by which it may be seized, the Hindu and European would almost invariably take hold of it by the opposite extremities.

The PRESIDENT having proposed the thanks of the Society to Major Owen for his paper,

Mr. BROOKES rose not, as he said, to object to the proposition, but for the purpose of inquiring why such a paper had been read. He had understood that all the papers offered to be read at their meetings were first submitted to the Council for their approbation, and he should like some member of the Council to state the reason why a paper which had no anthropological bearing should have been allowed to occupy the time of the Society?

Mr. MACKENZIE observed that the question was, no doubt, quite pertinent and a proper one to be put, but it admitted of a very simple answer. The paper was permitted to be read because it was considered highly anthropological, since it conveyed a knowledge of certain psychological views of the Hindoos. It was a question which was answered by the paper itself. The only objection which he made to the paper was in the misapplication of the term astronomy to what should be more properly called the astrology of the Hindoos.

The Rev. DUNBAR HEATH considered the subject of the paper to be decidedly anthropological. It was claimed for the Hindoos that they were an early branch of the Aryan family, that their race has dominated over the whole world, and that they are the only progressive race. Such a race must conceive new ideas, and have the power to assimilate new truths, and the strength of that race and its progression would depend on that power. In such a race also, it may be presumed, we should be able, within the bounds of one community,

to recognise the most opposing modes of thought and action; that was the case with the greatest nations in the world. Those nations that can give liberty to the most diverse forms of action are the highest. Multiformity was required in a progressive race, and in this paper it was shown to exist among the Hindoos. An intensity of light had been thrown upon them, and the paper showed that the Hindoo people are taking advantage of a portion of that light, and that they are beginning to see that the assertions in their ancient books are not correct. We at this day are in the same condition, and we are learning to ascertain by the light of science that things which were formerly recognised as facts are not so. It was curious to observe that the nations on whom this new light has been thrown are all in the same boat with us, and are beginning to perceive the inconsistency of facts with what they have been taught in books; and it was interesting to notice how those nations, who are thus becoming enlightened, act under different circumstances. That gave interest to the paper in his mind.

Mr. SALMON remarked that it was stated in the paper that the minds of the Hindoo and European are so differently constituted that if any subject were proposed for argument they would take different ends of the same thought. If, however, he understood the paper rightly, it showed that was not the case, and that the Hindoos were beginning to reject the crude notions of astronomy and to adopt the right. If the Hindoo mind operates differently from that of the European, he should like to know whether that arose from actual difference of mind or from the prejudice derived from books.

The PRESIDENT replied to the challenge of Mr. Brookes. The remark, he said, was a fair one, and he would state what was the practice adopted with regard to papers sent to the Society to be read at their meetings. It was the rule of the Council to refer any paper to some member to consider whether it was fit to be read; and the referee reported whether it was fitted to be read, and whether it ought to be published in the Society's *Memoirs*. If the opinion of the referee was favourable, in that case the Council relied on his judgment and did not go further into detail. It was twelve months since the paper had been sent in, and he regretted that it had not been read before. With regard to the character of the paper, he considered it was well deserving the consideration of the Anthropological Society. It showed what was going on in India in the mental development of the people. It showed that in the east the same inconsistencies between observed facts and written statements which had excited attention in Europe were beginning to be seen by another, and what were considered an inferior race. By the exercise of their rational faculties they were beginning to see that three and one cannot be the same; and the paper entered into the consideration of matters that developed the character of the mind of the Hindoos. It was for Mr. Brookes to show that such a paper did not throw any light on the science of man.

Mr. BROOKES said the Council had no right to call on him to perform the duty which devolved on themselves. It was incumbent on

the Council to prove that the paper was anthropological, and it was not for him to show the contrary. He admitted that the science of human nature was very extended in its bearings, but that Society being devoted to the study of man, he contended that they ought not to spend their time in considering the astronomical views of any race 1000 years ago, and he could not see any anthropological bearing in such consideration.

Professor MACDONALD thought that Mr. Brookes had shown that the *onus probandi* lay with the Council and not on him. The President, however, had shown that the Council had taken a very fair way of ascertaining the fitness of the paper, and he did not find fault with them on that account, but he objected to their throwing the *onus probandi* on Mr. Brookes. He thought the paper was an important one in an anthropological point of view; and that the higher region of thought referred to stimulated discovery. Astronomy has ever had more hold on the lower classes in India than in the western part of the world, and he wished that a higher degree of astronomical knowledge was more widely diffused, and especially in this country. As to the reference which the discovery of astronomical truths had on their Scriptures in correcting errors, he thought that course of inquiry should be favourably received and encouraged in our own case. He regarded the paper as a valuable contribution to anthropology.

Major OWEN in reply to Mr. Brookes observed that the paper by the Baboo was no doubt astronomical, but he had brought it forward to show the change of ideas that was beginning to take place in the Hindoo mind. Any peculiarity in the form of the skulls of Hindoos was considered well deserving the attention of the Anthropological Society, and if they regarded with interest differences in the form of the skull between them and Europeans, why should they not also look with interest on the difference in their minds? The paper showed that the Hindoos have their own distinct and peculiar ideas, and that in their own peculiar way they have found that their Scriptures do not give a truthful account of natural phenomena, and must be altered. It was a great fact, that, in Benares, the principal seat of the Hindoo religion, a paper should have been read and published under the auspices of one of their learned societies, which threw doubt on the accuracy of the Sastras. He did not see that any objection could be raised to the paper in whatever light it was considered. With respect to Mr. Salmon's objection with regard to the apparent inconsistency of the statement, that if there were two ends to any idea, the Hindoo and European would take hold of it at the opposite extremities, he did not mean to assert that they would therefore differ in their conclusions. They might arrive at the same results but by different means.

On the Alleged Sterility of the Union of Women of Savage Races with Native Males, after having had Children by a White Man; with a few remarks on the Mpongwe Tribe of Negroes. By R. B. N. WALKER. Abstract. (The paper will appear at length in the *Memoirs*.)

He referred to the testimony of Count Strzlecki, who has asserted that

women of certain savage races who have cohabited with Europeans become sterile with men of their own race, and bases his statement on observations made by himself amongst some tribes of American Indians, Polynesians, and aboriginal Australians. Mr. Alexander Harvey had adopted and strenuously supported this theory; which Mr. Walker denied to hold good in at least one tribe of pure negroes, the Mpongwe of Gaboon. Few cross-breeds certainly exist there, the number not being more than fifteen. These half-breeds were the offspring of English (6), French (5), Germans (1), Spanish (1), Portuguese (1), the remaining one being either Spanish or Portuguese. Three several instances were cited by him of cases which invalidated Count Strzlecki's law. His experience with regard to the fertility of half-breeds amongst themselves was against the existence of such a condition, only one instance being known to him. The Mpongwe tribe on the sea-coast was fast becoming extinct, one-third of the tribe having been carried off by small-pox during the last year. The Adjomba nation, of which the Mpongwe tribe is an offshoot, is situated some seventy or eighty miles from the settlement at Gaboon. Mr. Walker was about to make some little stay in that country, which will be the first stage of his journey into Western Equinoctial Africa.

The thanks of the Society were given to Mr. Walker for his communication.

Mr. C. Carter Blake observed, with regard to M. Broca's work, that it summed up the general results which had been arrived at on the subject, and pointed out the conclusions drawn from them before his time, to the effect that the first (European) male who cohabits with a negress, has influence on the offspring afterwards produced. He alluded to the experiments made by Lord Morton with a zebra and a horse, in confirmation of that opinion, and to John Hunter's analogous cases. With regard to the assumed law of Count Strzlecki on the subject, his results had been since "pooh, poohed," but were not so improbable as at first sight may be thought. It was asserted, that as regards the Australians, there was great probability in Count Strzlecki's opinion, and it was confirmed in some degree by what was observed in the lower animals.

Dr. Beigel considered that the principal point to be borne in mind in considering this subject, had been left out in the paper, viz., the state of the womb. Women were often met with who had borne children, and then ceased to propagate in consequence of some deformity which prevented it. In such cases, before any conclusions were drawn, it should be ascertained whether the womb was in a healthy state. In almost all women who had borne children, and who afterwards became sterile, he believed it would be found there was some peculiar mechanical condition which prevented conception. No allusion to the condition of the womb had been made in the paper, and no conclusions could be arrived at in any case, unless an examination had taken place to ascertain whether there were any cause to prevent conception.

Professor Macdonald observed that it had been frequently said

that Australian women, after connection with Europeans, were subject to disease, and if that were the case, it was not unlikely that gonorrhœa might cause some stoppage in the womb. The impress of the first connexion, in certain cases in domestic animals, was known to have great effect. In sporting dogs, it was found to have an important effect. If a bitch has had a stray connexion, in all subsequent litters one or two of the mongrel breed will appear. With reference to the experiments of Lord Morton, he states that the sire of the first produce was a quagga, as the leg markings of the three foals were like those of a zebra, marking change of species.

Major Owen said that it would be advisable to obtain from India some current data which might be procured from the half-caste families who, as a rule, intermarried; this would show whether such unions were prolific through several generations. Medical men and civil officers had the best opportunity of obtaining such information—genealogies in fact. It might be obtained from records and memory dating as far back as possible. We should be much indebted to any who would take up this subject and work it out faithfully to the full extent of their means of information.

Dr. Langdon H. Down remarked, that he had always considered that a negro woman who had had fruitful connexion with an European, was rendered sterile in her subsequent connections with negroes, but he thought that further evidence was wanted on the subject.

Mr. Milligan said he had known several instances which contradicted the assumed law of Count Strzlecki. In Tasmania, the natives told him there were many instances of women, who after having had connexion with Europeans, returned to their black husbands, and had children by them afterwards. In one case a woman had children first by a black man, then one, a girl, by a European, then more black children, and having again lived some time with another white man, she had a white child, also a girl; and lastly, having been removed to Hindois Island with the rest of the Aborigines of the island about 1830, she became the wife of another black man and bore to him one son. Mr. Milligan added that he had himself seen the two half-caste girls referred to, and also the black boy born last of all.

The President remarked that the value of Mr. Walker's paper consisted in its presenting inducements to travellers to investigate the question, which had been in dispute for twenty years. If their local secretaries, and others residing in those parts of the world where information on the subject could be obtained, would investigate the matter and give more reliable facts, they might arrive at the truth on that disputed point, but at present they were in want of satisfactory facts, which he hoped would in time be forthcoming.

Description of a Living Microcephale. By John Shortt, M.D., F.A.S.L.

Abstract. (The Paper will appear at length in the *Memoirs.*)

The individual description was the offspring of Maharatta parents, about sixteen years of age, four feet one inch in height, and weighing 54 lbs. avoirdupois. He is of a tolerably well-formed figure and pro-

portion, except the head, which is extremely small and rounded, with the bones apparently well consolidated, and the scalp covered with black hair. The teeth are large, the lower central incisors diverging obliquely on either side, leaving a triangular gap between them. The ears are large, and the elbow joints cannot be straightened out fully. The mental condition may be termed infantine; he cannot utter a single word; the only sound that issues from him is *nah*. He laughs heartily, yawns occasionally, is quite deaf, does not know one man from another, totters slightly from side to side, is filthy in his habits, and does not care about clothes. Complete measurements of the subject were given, according to the method adopted by Messrs. Scherzer and Schvarz.

Dr. DOWN said he had had a great many of such cases, one of which was of very low organisation, yet he had always found, that with care, the persons with skulls so abnormal, might to a certain degree be educated. Though the brain was so small, it might be of a better quality, and he thought microcephali were more capable of education than might be supposed.

Dr. BEIGEL said he had seen fifteen instances of the same kind at Colney Hatch, and he agreed with Dr. Down in thinking that by proper training such persons might be educated.

The following paper, by E. Sellon, Esq., was taken as read, the hour being too late for the reading of it.

Some Remarks on Indian Gnosticism, or Sacti Puja, *the Worship of the Female Power.* By EDWARD SELLON, Esq. Abstract. (The paper will appear at length in the *Memoirs.*)

The author directed especial attention to the austere principles inculcated by both the Saiva and Vaishnava Codes of the ancient Hindu faith. The Sactya creed was one of these. Numerous books in Sanskrit verse are possessed by it, and it has been gaining ground in India for some years, although it has lately sustained a check at Bombay, which may ultimately lead to its suppression. The Sactya creed professedly acknowledges Brahma, Vishnu, Siva, and all goddesses and demigods, but declares them all to be subordinate to the great goddess, who is emphatically power. The creed is set forth in the remarkable and recondite volumes of the Tantras, which some years since were almost sealed to foreigners, but a translation of which has at length been obtained. The author gave extracts from these Tantras, which were looked upon by the Brahmins as undoubtedly ancient, more ancient, indeed, than the Puranás. Great license was accorded to the followers of the rule prescribed in these works. The author described in detail the ritual and the incantations by which this mode of worship is practised, and pointed out that the Eleusinian mysteries bear a very striking analogy to the Sactya; and that those writers are in error who have asserted that the mysteries of Eleusis were confined to men. A reference to D'Hancarville will give several instances of the initiation of *women*. It having been shown that the signification of the Syrian name of Baal (Yahveh) was absolutely the same as that of the Jewish god, and that both names

had the same signification—"he makes to live," or "he makes to be" —he concluded that the Syrian Yahveh [Baal-peor] and the Jewish Yahveh [Jehovah] were one and the same deity, though not worshipped with the same images or ceremonies, the Syrians exhibiting their emblems on every high hill and under every green tree; the Jews mysteriously concealing their emblems in an ark or coffer. Clemens Alexandrinus had shown the phallic purpose of the mystic arks of Egypt; and Mr. Sellon inferred a somewhat similar purpose to have been subserved by the Ark of the Covenant.

The Meeting then adjourned.

May 15th, 1866.

James Hunt, Esq., Ph.D., F.S.A., F.R.S.L., President, in the Chair.

The minutes of the previous Meeting were read and confirmed.

The following gentlemen were announced as having been elected Fellows: John Fraser, Esq., 75, Tithebarn Street, Liverpool; Dr. Frederick Skues, Staff Assistant-Surgeon, 2, St. John's Road, Upper Holloway; Thomas Laurie, Esq., Longstone Terrace, Greenwich; John O'Connell Byrne, Esq., 24, Mark Lane; Edwin Lander, Esq., Consul, Birmingham; Charles Hamond Alpe, Esq., 37, Montpellier Road, Peckham; Charles O'Callaghan, Esq., M.D., Killarney.

Frederick Edward Pearse, L.R.C.P. Ed., High Cross, Sampford Peverell, near Tiverton, was elected a Local Secretary for Tiverton.

The following present was announced, and thanks were voted for the same. Photographs of Andaman Islanders (J. Bainbridge Baxter, Esq. M.R.C.S.)

Mr. Baxter said, with reference to the photographs of Andaman Islanders presented, that the seven persons photographed (two men and five women), were brought to Calcutta, but though the islands were so near to that presidency, little was known of the race who inhabited them. The principal thing remarkable in the form of the skull, was a depression on the top of the head in the female, which he believed was caused by carrying heavy weights on their heads. He believed the race was fast dying out, therefore the photographs possessed additional interest.

The President observed that the Society were anxious to have such photographs; they had been accompanied by extracts from the Indian papers, giving an account of the individuals, and the subject would be brought forward at a future meeting.

The following papers were read:—

On the Analogous Forms of Implements among Early and Primitive Races. By Hodder M. Westropp, Esq., F.A.S.L. (The paper will appear at length in the *Memoirs*.)

The author commented on the great identity which prevailed in the instruments of warfare, and tools used in countries most widely apart. Man, in all ages, and all stages of his development, was a tool-making animal, and his instincts and necessities lead him to fashion

instruments and tools suited to his requirements. The same universal process of mind and instinct will lead the Australian, the New Zealander, the Peruvian, and the Scandinavian, to shape and fashion a stone weapon. The author described in some detail the characteristic forms of the gravel drift, flint implements of Ireland, and polished stone implements. The following terms were proposed by the author to distinguish them—Palæolithic, Mesolithic, Kainolithic. He briefly discussed the chief antiquities of the bronze age, and remarked that the same alloy (10 or 13 per cent. of tin) existed in the bronze weapons of Europe, Egypt, Peru, and Mexico.

The PRESIDENT said he was very sorry that Mr. Westropp was not present to answer the questions to which his paper would probably give rise, but it was very suggestive, and he was sure the Society would return their thanks to the author. It opened a large question, and indulged in some wild speculations, for which there seemed no sufficient data; the assertion that civilisation proceeded in a universal sequence, seemed to have little foundation, and in the present state of knowledge, the facts were so limited, that it was not safe to draw any conclusions on the subject. To show how little reliance is to be placed on isolated facts as indications of the state of civilisation, he mentioned, on the authority of a clergyman, that in Zetland, a woman was seen cutting cabbages with a stone implement, identical with those usually attributed to the stone age.

Mr. T. BAINES explained the manner in which the manufacture of stone spear-heads is carried on in Australia, and stated that some stone implements have recently been discovered in Africa, near the Fish River, which were not now used by the natives, and pointed to the existence of a race of men in that part of Africa before it was occupied by the Hottentot. In Australia the natives use stone weapons at the present day. On one occasion he came to a place where there had been a manufacture of those weapons, numerous chippings being found about the spot. He stated that in making the implements, a large stone is selected to act as an anvil, and against it the natives strike the stone to be chipped into form; three chips, supposing every blow to tell perfectly, would be produced in forming one weapon, but allowing for failures we may suppose at least thirty to be necessary. There were many failures, and those, with the pieces of stone chipped off, were lying about the spot where the supposed manufactory of the implements had been carried on. It was impossible, he said, that the implements found could have been produced accidentally, in confirmation of which opinion he referred to the fact, that nothing approaching the shape of a spearhead is ever found among stones broken for road making.

Professor MACDONALD said the kind of stone implements found was no indication of the age of civilisation, inasmuch as the character of the implements must depend in a great measure on the nature of the stone of which they were made. Bronze and iron implements were a safer index of the course of civilisation, for in such cases the same material was fashioned in different forms. The axe implements of the present day are, in general form, similar to those of early

times, with the exception of the mode of fixing the handle, and the discovery of the time when that change was made might be useful in ascertaining the progress of civilisation.

Mr. Higgins observed that similarity in the composition of the bronze employed in making implements, did not bear out the views of the author of the paper, for every people would try what mixture of tin and copper was best adapted for the purpose, and would soon obtain the same results. He considered it as established, that people who had once acquired the art of making iron implements never went back again to stone.

Mr. C. Carter Blake observed, in reference to that part of the paper in which Mr. Westropp noticed the similarity of the proportions of copper and tin in all bronze implements, that it was very surprising that in Peru, where tin was almost unknown before the time of Columbus, the inhabitants should have been possessed of good workable bronze. In Mexico, where tin was common, the fact was not surprising.

Rev. Dunbar Heath pointed out the distinction which mineralogists make between cleavage and fracture in the class of stones likely to be adopted in forming weapons, and considered that the shapes of the implements must consequently vary with the nature of the stone. All the vitreous class of stones have a conchoidal fracture, and they cannot be broken in straight planes, the surface of the fracture being either concave or convex. Flint, for example, has a conchoidal fracture, and from the description that had been given of the method of making stone implements, it might be inferred that if made of flint, they would present conchoidal fractures.

Mr. Pinkerton remarked that gun flints are perfectly flat, and he thought much might be learnt respecting the ancient flint implements from the makers of modern gun flints. Many of the common flints found in this country, he said, have a completely straight cleavage, and on one side are perfectly flat.

Major Owen said the fracture of flint was no doubt conchoidal, but when broken in large pieces, the fracture appears flat, and in making gun flints, the flattest parts are selected for the lower surface, and the surrounding parts are broken off.

Mr. Baines said that the Australians use jasper and agate for their spearheads, and for their axes and other implements they make use of trap rock.

Professor Macdonald observed that flint is only found embedded in chalk, which does not exist in Denmark, therefore it became a curious question, whence the flint implements discovered there were derived.

Mr. Henry Brookes thought it was a mistake on the part of the author of the paper, to attempt to fix a date to civilisation by the use of those implements, unless they were found generally in the same country, and used by the same race. It was possible that in some countries civilisation had advanced to a high pitch among one portion of the people, while others might be in the rudest state, as was found to be the case at the present time. In some parts of the kingdom, as

the President had mentioned, stone implements might still be used, but they did not belong to our age; the people who used them had simply been left behind in the progress of civilisation, and their existence did not stamp our period. The discovery of races using bronze or stone implements, merely indicated that the people were the remnants of races that have not intermixed with the rest of mankind. It was probable that civilisation might have progressed for many thousands of years, and yet there might be races who had not arrived beyond the first stage.

Mr. MACKENZIE adverted to the fact that implements made of the same kind of stone, and of similar construction, are found in a variety of districts; that similarity was by no means an index to the comparative age of civilisation, for all the stages of civilisation might exist together for a long period. He held the opinion that the earth was older than one can conceive. He did not suppose that we all originated from Adam, but that we were all children of Mother Earth, and it was possible that the advance of all the periods of civilisation was aided by Mother Earth. That doctrine, he knew, was laughed at by modern science, but modern science had not yet corrected it.

The PRESIDENT called on Mr. Mackenzie to confine his remarks to the question before the meeting.

Mr. MACKENZIE, in continuation, observed that there was no evidence to support the views of the author of this paper. They should try to find some uniformity of design between the implements discovered in various parts of the globe. Such implements were very likely to be imitated, and it was desirable to obtain a standard of flint implements, by which they might be gauged. One of the most perfect, he thought, was one brought from the Zetland Islands by Dr. Hunt.

Mr. DIBLEY considered that there is a general uniformity of design perceptible in the flint implements found in all parts of the world; the idea in every case being to make an instrument that would cut; but varying slightly in form according to the nature of the stone.

The PRESIDENT thought the author of the paper did not go far enough to prove his position. If he could establish an analogy between the character of the implements and the state of general civilisation, it would be important, but he had not done so, and the paper was rather speculative than scientific. He hoped that in some future communication on the subject, the author would be able to show that all the early people who inhabited the earth had analogous forms of flint or stone implements.

Professor MACDONALD remarked that in the forming of stone implements, there could be no more ingenuity exercised by one race of men than by another, for they would be made of such form as the rock would permit. The progress of civilisation, as indicated by implements, could therefore only be traced in those made of bronze or iron, which admitted of the exercise of greater art.

After a few remarks from Dr. CAPLIN, on the varieties of stone from which cutting implements might be made, the discussion ended.

On a Deposit containing Shells and Animal Remains at Newhaven in Sussex. By Col. Beauchamp Walker, F.A.S.L., Assistant Quarter-master-General, and Lieut. Ardagh, R.E. Communicated by Professor R. Owen, F.R.S., Hon.F.A.S.L. With *Notes upon the Animal Remains*, by C. Carter Blake, Esq., F.G.S.; *and on the Condition of Deposit*, by W. Topley, Esq., F.G.S.

No. 1. *Colonel Walker to C. Carter Blake.*

"Shorncliff, January 5th, 1865.

"Dear Sir,—I have been recommended by Professor Owen to send to your Society a copy of a memo. which I forwarded to him of remarks on a deposit found at Newhaven, and which was brought to my notice last Saturday when making an official visit to that station. If I can afford any further information or assistance in this matter I beg that you let me know.

"Very faithfully yours,

"Beauchamp Walker, Colonel,

"A.Q.M. Gen. South Eastern Division."

No. 2. *Enclosure referred to in No.* 1.

"Shorncliff, January 5th, 1865.

"There is at Newhaven, close to the site of the fort now under construction, a very interesting instance of the kitchen-midden. The summit of the hill above the government works is crowned with an old fortification, from its construction, of a date probably anterior to that of the Roman occupation of Britain. Immediately in the face of the cliff, which is here full of faults, and which has manifestly receded, even in quite modern times (not so much alone from the encroachment of the sea as from land springs and other defects in the cliff itself) to seaward of the line of the old earthen wall, a band of mixed shells, bones, and pottery of decreasing thickness from centre to ends is found about twenty inches below the surface of the ground. Under this layer is a thickness of about the same depth of earth, then a thin layer of broken stones or pebbles, and underneath this the natural strata of the coast formation.

"This is not the only place in which remains of food deposits occur in the vicinity of this old work, which has been bisected by the ditch of the new fort, but the place I refer to is, from its having been exposed by the degradation of the face of the cliff, the most accessible and certain ground for further investigation. The bones appear to be those of both birds and animals; the shells those of the ordinary shell fish of the coast, oyster, mussels, and limpets; and the pottery of a rude description, but well baked and retaining its colour.

"The most singular relic which I picked up in the course of a short official visit to Newhaven, was a boar's tusk, nearly three inches in length, and very perfect, which I found lying on the surface of the ground where a deep excavation had been made for the magazine. I could not learn positively that any metal remains had been preserved, though it was said that bits of bronze had been discovered, but I have

requested the resident officer of engineers to keep me informed of future discoveries.

"BEAUCHAMP WALKER, Colonel., A.Q.M. Gen."

No. 3. Colonel Beauchamp Walker to Professor Owen, F.R.S.

"Shorncliff, January 11th, 1865.

"DEAR SIR,—I have heard to-day from Lieut. Ardagh, who tells me that a pair of human thigh bones (he is told) were turned up about three feet below the surface a few days since, but he cannot trace them. The fact is there are about 250 civilian workmen in the fort, over whom we have control, and they make away with all they can conceal. The military superintendence is represented by one lieutenant and one sergeant of engineers.

"I hope, however, in a few days to be able to supply all you require, and also to furnish further information to the Anthropological Society, and if my duties here will permit me I shall pay another visit to Newhaven.

"I remain, dear sir, very faithfully yours,

"BEAUCHAMP WALKER, Colonel."

No. 4. Lieutenant Ardagh to C. Carter Blake.

"Royal Engineer Office, Newhaven Fort, Jan. 20th, 1865.

"SIR,—I have this day sent to Professor Owen a collection of bones, teeth, pottery, etc., which I made from the cliff at Newhaven, referred to in Colonel Beauchamp Walker's communication to you. As I have not much time at my disposal, I must refer you to the report which I forwarded to Professor Owen for a description of the remains. The sections, etc., which you desire are contained therein. It is impossible to say in what stratum the tusk which Colonel Walker sent to you was found, as it was thrown out by one of the navvies from a deep excavation. I have forwarded another perfect specimen which I found myself, with the pottery and other articles in the lower vegetable soil under the shell disposit.

"If you require further information I shall be happy to afford it whenever I have time at my disposal.

"I remain, yours very sincerely,

"C. Carter Blake, Esq. "JOHN C. ARDAGH, Lieut. R.E."

No. 5. Lieutenant Ardagh, R.E., to Professor R. Owen, F.R.S.

"Royal Engineer Office, Newhaven Fort, Jan. 20th, 1865.

"SIR,—I have the honour to inform you that, in accordance with a wish expressed by Colonel Beauchamp Walker, C.B., I have made an examination of some recent deposits in this neighbourhood, of which you will find a description in the accompanying report; and that I have this day sent by rail, addressed to you, at the British Museum, a box containing the objects which I found.

"Should it be considered desirable to pursue the investigation on the spot, or to report on the similar objects contained in the museums of Lewes and Brighton, I will be happy to afford all the assistance in my power to forward an inquiry on the subject, which is one in which

I take a considerable interest. I should be much gratified by hearing your opinions; and,

"I have the honour to be your obedient servant,

"JOHN C. ARDAGH, Lieut. R.E.

"Professor Owen, F.R.S., etc., British Museum."

Examination of the Upper Portion of the Cliff, and Remarks on objects discovered therein, 17th Jan. 1865. By Lieut. ARDAGH, R.E.

The cliff at Newhaven shows chalk to a height of about 100 feet above the sea level; above that, plastic clay of variable character and thickness. As is usual on those parts of the coasts of Sussex and Kent where no artificial means have been applied to guard against the encroachments of the sea, a gradual destruction of the cliff by that element continues to take place, the simplest proof of which lies in the fact, that during the period 1849 to 1864 the chalk marks used by the coastguard to indicate the pathway along the cliff at night, were twice moved landwards in consequence of the slips of the cliff. The plastic clay is also acted on by land springs which melt away the lower part of this formation and cause a subsidence or rupture of the surface. In this way the sections of the more recent strata are for the most part fresh and well defined.

The Castle hill at Newhaven, before the introduction of artillery, was a very strong military position. A natural formation resembling the ruined parapet and ditch of an early encampment has evidently been taken advantage of and improved by art; for the sections of the cuttings now being made for the ditch of a new fort lead at once to that conclusion. The space now enclosed by the trace of the ancient mound is long and narrow, but it must at one time have been large enough to enclose a considerable village. The greater part of the site has however long fallen a prey to the waves, and the cliff now presents a section not far from, and parallel to, the land front. In this section the search was made, and the position of the discoveries will be best understood by reference to the sketch which I have made to explain the formation of the ground.

It is notorious in this neighbourhood that remains of animals and traces of human agency are abundant on the site in question; and I conclude that the Museum of the Sussex Archæological Society at Lewes Castle, and that in the Pavilion at Brighton, probably contain a much better class of specimens than I have found in my short search.

Colonel Beauchamp Walker, however, suggested that it might be desirable to send some specimens to the British Museum, and to the Anthropological Society; and as I am convinced that important discoveries are often buried in local museums, I concur with this suggestion, although I anticipate that the examination which I have made will throw no new light on the subject, as the specimens are so obviously recent as to belong to the historic age.

I expect, however, that in the course of the excavations for brick earth in the silt deposit of the River Ouse, some interesting discoveries may be made. Already a single bone, which I presume to be

one of the cervical vertebræ of a deer, has been discovered, and I have directed that all remains of whatever description should be carefully preserved. Half of a handmill or quern has been found in the excavations from the ditch. Not having been present at its discovery, I cannot give any information beyond that it lay within a few feet of the surface. In the section attached, the strata have been numbered for convenience of reference.

No. I is a vegetable mould of ordinary character, bound together by numbers of small roots, and containing *very few* remains, and those invariably in the lowest part.

No. II is composed of the shells of the common mussel, with large numbers of limpets, and less frequently oyster shells. It answers to the description of the shell deposits in the Danish "kitchen-middens" given by Lyell, to the best of my recollection. [I may here mention there exists on the side of the cliff at Milford Haven, on the west side of Angle Bay, a deposit principally of oyster shells, three or four feet in thickness, and now completely covered with surface soil. I observed this before Lyell's book was published, and have since had no opportunity of examining it. I can, however, refer to friends of mine in the neighbourhood and obtain further information if it is considered desirable.]

No. III is a vegetable soil, the organic parts of which have been more completely disintegrated and decomposed than No. I. In it occur bands of carbonised matter; flints broken in such a way as to lead one to suspect human agency; flints cracked by the action of heat; portions of clay more or less hardened or altered in colour, to bright reds and yellows, by the same cause; occasionally limpets and other shells; and nearly all the specimens which have been forwarded, including those of the most finished description of pottery which were found; so that for practical purposes all the specimens may be considered to have been found either in this stratum or in the shell bed which overlays it.

No. IV is formed of pebbles and flints partly waterworn; it is of irregular thickness, varying from three to twelve inches.

No. V is the common plastic clay, and is interspersed by layers of loam shingle and variegated sand, as is usual in that formation.

The length of the portion of the cliff which furnished the specimens forwarded is about one hundred yards, but there is reason to suppose that a search made at any point within the contour of the entrenchment would be equally successful, as the supply appeared to be independent of the position.

Description of Specimens.

Pottery.—First variety. Two fragments of excellent red pottery, with uniform smooth face, similar to some Etrurian vases.

Second variety. Red pottery of the same quality as ordinary flower pots.

Third variety. A black or dark grey pottery, occurring in very great abundance; some specimens well finished.

Fourth variety. A yellow or tawny-coloured description.

Metal.—1. Two pieces of decomposed copper, or brass ornaments or coins.

2. A piece of oxidised iron (this specimen is doubtful).

3. A piece of lead in the form of a hook.

Bones.—These must speak for themselves, as I can make no attempt to classify them.

Flints.—I have selected some flints from the same strata as the bones, in the possibility of their being considered to be evidence of human handicraft. For my own part I consider it to be highly improbable.

Shells.—A few limpets and oysters from No. II are sent, merely to show what state the rest are in. The mussels are so much decomposed that they do not bear handling, although the bright mauve colour of the enamel is still visible.

Note upon the Animal Remains. By C. Carter Blake, F.G.S.

The animal remains all consist of the existing domesticated animals. Bones of the domestic pig (*Sus scrofa*) are very frequent; some of these, especially the long bones, have been split longitudinally to extract the marrow, and exposed to the action of fire. Some teeth and fragments of bone exist of the domestic ox (*Bos taurus*). These do not appear to have been burnt, although one of the bones has been split to extract the marrow. The proportions of the bones of ox indicate individuals slightly larger than most existing breeds. Some bones of goat (*Capra hircus*) are also found, one especially, the left parietal and portion of the occipital and periotic bones, which has evidently belonged to an individual whose skull has been cloven vertically by one chopping blow; this having, in my opinion, been performed by an instrument closely resembling the ordinary butcher's cleaver. I am enabled to publish the following correct list of the animal remains, through the kindness of my friend, Mr. William Davies, of the British Museum.

Last left lower molar of *Bos;* exoccipital and basioccipital bones, ditto; condyle of left lower mandible, ditto; fragment of left lower mandible, ditto; fragment of left lower mandible (angular piece), ditto; distal articular end of radius, ditto; head of femur, ditto; portion of lower end of right humerus (ditto); cervical vertebra, ditto. Part of left parietal of goat, *Capra hircus.* Antler of goat (young). Portion of pelvis (ilium) sheep, *Ovis aries.* Third cervical vertebra, sheep or goat (young); fragment of metacarpus, sheep or goat (young); fragment of metatarsus, sheep or goat (young). Glenoid process of hog, *Sus scrofa;* fragment of left lower jaw, ditto; symphysis of left lower jaw, with canine and first premolar, ditto; incisor of ditto; part of ulna of, ditto; portion of right side of pelvis of, ditto. Femur of dog, *Canis familiaris* (jun.); tibia of dog; fragment of pelvis of (?). Upper half of metacarpus of a bird.

The presence of these domesticated animals with fragments of Samian ware, although accompanied by evidences of a supposed rude type of flint implement, would not lead me to infer great antiquity for this deposit. The total depth of three feet three inches of super-

incumbent matter above the shingle bed is very significant, as indicating the rapidity with which the deposit has been formed.

Notes on the Roman Remains found at Newhaven. By WILLIAM TOPLEY, Esq., F.G.S., of the Geological Survey.

The South Downs generally are rich in Roman remains.* The Rev. F. Spurrell has already described some discovered in 1852 at Newhaven.† It may be interesting to compare his account with that given in the present paper. They were found "in an upland meadow on the estate of W. Elphick, Esq.," and consisted of "tiles, coins, bullock's horns and bones, *flints* calcined and discoloured by heat; pieces of several kinds of grey pottery, of Samian red ware, and of an amphora; an arrow-head of iron, and some dozen nails and iron fragments; bones (not human) charred, and fish-shells quite perfect, though soft, of the mussel, oyster, whelk, cockle, periwinkle, and limpet; and in the shells, and in patches everywhere, coal-ashes. Every piece of iron was much corroded, and the pottery much worn, and found only in fragments. These Roman fragments formed part of a refuse place, or ash-pit." The author does not give the exact locality of this "find." It is not stated that the *flints* were *worked* in any way; but it is worthy of note that roughly-chipped flints are frequently found with deposits of Roman age. They occur in the Newhaven Cliff section (bed 3), and have been described by Mr. W. Boyd Dawkins from Romano-British graves at Hardham, near Pulborough.‡ I have found numerous *flint-flakes* in a field at the Hermitage, two miles west of Maidstone. Roman remains are frequently discovered around this spot.

The investigation of Roman antiquities in the neighbourhood of Newhaven affords a special interest, because this place (amongst many others) has been claimed as the site of the ancient city of Anderida, which, however, is now generally fixed at Pevensey. Information is much required upon the *Roman roads* of this district. Stukeley§ thinks the Hermenstreet started from the channel at Newhaven and ran due north through London. Probably, however, it divided into two branches at London, one going south-west to Chichester, and the other passing east and south-east to Pevensey. It is thus marked on Dr. Guest's map of "The Four Roman Ways."‖

It is probable that in Roman times Newhaven levels were covered by the sea.¶ Dr. Mantell has described sections of this alluvium. It is certainly of comparatively recent date. In later times the outlet of the Ouse was at Seaford, being separated from the sea by a bank of shingle. Newhaven was then called *Meeching*.

The PRESIDENT said that papers of that kind were of great use, as serving to keep men alive to the importance of facts. The Society

* See Horsfield's "Hist. of Sussex" (1835), vol. i, chap. 2; also Horsfield's "Lewes", vol. i, chaps. 3 and 4.
† Sussex Archæol. Collection, vol. v, p. 263.
‡ Ibid., vol. xvi (1864), p.
§ Itinerarium Curiosum (1724), p. 6.
‖ Archæological Journal, vol. xiv (1851), p. 99.
¶ Horsfield's "Sussex" (1835), vol. i, p. 46.

wanted to keep on collecting facts. It was only by the collection of such facts they could hope to arrive at the solution of the problem of the history of the early inhabitants of this country. It was all the more satisfactory that the authors of the paper did not pretend to throw any light on the antiquity of man.

Rev. DUNBAR HEATH inquired whether the stratum of marine shells had been deposited since the days of the Romans, and whether it was supposed that such an extensive midden had been found since the time of the manufacture of Samian ware. He could not understand how a stratum of marine shells should extend over so large an area at such height above the sea level.

Mr. C. CARTER BLAKE stated that it was probable that in the Roman times the sea at Newhaven was at a higher level, relatively. There was no difficulty in accounting for the extension of the kitchen-midden horizontally, the difficulty was to account for the regular depth of the stratum.

Mr. MACKENZIE thought it was desirable they should, in the first place, determine what was meant by the term "kitchenmidden." Did it mean, in fact, archiæval dust holes? If so, it would be only right, in that Society—where they professed to call a spade "a spade," and not "an agricultural implement"—to say so. Those dust holes had not produced much as yet.

Mr. HIGGINS contended that "midden" was a good old English word, and that the kitchen middens were heaps of refuse matter, and not holes.

Mr. C. CARTER BLAKE, referring to the sections showing the position and extent of the kitchen-middens described in the paper, observed that their correctness was confirmed by two very good geologists, and he expressed surprise that Mr. Heath should have disputed the existence of such a deposit of so large an extent, and at such an elevation, as there were numerous other similar cases.

Mr. SALMON agreed with Mr. Heath in thinking that there was a want of some satisfactory theory to account for the presence of shells and animal remains in such a position.

Mr. EDWIN COLLINGWOOD expressed a similar opinion.

Professor MACDONALD observed that beds of shells were often found lying along the coast of great depth, and for a considerable extent. They might be the refuse of an encampment, or of a place of residence.

The PRESIDENT hoped the discussion would do good in eliciting facts, for it was the duty of the Society to be sceptical, and not to receive any statement without careful examination.

On a Kjökkenmödding at Santos, Brazil. By Capt. R. F. BURTON, V.P.A.S.L.

"British Consulate, Santos, Brazil, Dec. 11th, 1865.

"SIR,—I send by this mail a small box of stone implements, etc., lately found by me and others in various parts of Santos Bay. The fifty leagues of coast from Angra dos Rios to the Rio Conanen was

inhabited by the Goayana Indians, who bordered upon the Tameyo to the north and the Carejé to the south.

"The Goayana Indians were a domesticated tribe, they only enslaved instead of killing and eating their prisoners, and they were kind to the whites—thus Martius Affonse de Sousa found it easy to colonise in their lands. They never made war upon their neighbours outside their own limits, and they fought in the open 'Campos' or Brazilian Prairies, not in the bush. They had no plantations nor villages like the Tameyo; their dwelling-places were caves or holes in the ground, where they kept fires burning night and day, and their beds were the skins of wild beasts killed for food. This much we learn from the *Nova Orba Serassia Brasilica* of Fr. Antonio di Santa Marie, Talvatam, 1761.

"These 'Negroes,' as the people still call them, disappeared from the vicinity of Santos Bay shortly after 1532, when the Portuguese founded S. Vicento. It was their custom to accompany the wild beasts in their annual migrations from the highlands of the interior during the so-called winter—May to September—and *vice versâ*. On the seaboard they seemed to live chiefly upon oysters and other shell-fish. They must have had certain camping grounds, generally amongst the mangroves, where crabs and different kinds of crustacea are common. They heaped up the empty shells in huge mounds, and in them buried their dead. The mounds are often apparently double, and separated by a small stream of fresh water, as if each subtribe or family had its own peculiar plan.

"Of these kjökken-möddings there are in Santos Bay about twenty, besides many down the coast at Iguapa, Cauanen, and their maritime haunts southwards. Some are of great size. On December 3rd, in company with Senor Juan Baptista da Silva Bueno, and Messrs. Glennie and Miller of this city, I visited a deposit in the 'Ilha de Casceiro,' to the north-west of Santos. It contains three mounds, one of which is about 200 feet high, and about 2800 feet each way. The oysters in question form a conglomeration (of which a specimen is forwarded) in blocks which reach a ton weight. They have supplied the country with lime for the last three centuries, and will yet last for a long time.

"Nos. 1 and 2 are from the brick grounds near Sta. Kita to the north of Santos Bay. They were given to me by M. Antonio José de Silva Campella. I am promised other specimens if you desire to receive them, and I am doing my best to procure for the Anthropological Society some skulls of this extinct race.

"I am, Sir, your obedient servant,

"Richard F. Burton, V.P. Anthro. Soc.

"The Secretary A. S. London."

The President stated that the box containing the specimens referred to in the paper had not yet arrived.

On the Opening of a Tumulus at Essequibo. By the Rev. W. H. Brett.

"*To the Venerable Archdeacon Jones.*

"**Trinity parish, Essequibo, Jan. 4, 1866.**

"My dear Archdeacon,—Having long entertained the opinion that the shell-mound standing on the precipitous edge of Waramuri sand-reef was of artificial formation (being either a tumulus of similar nature to the kitchen-middens of Denmark, and the shell-heaps recently examined, I believe, in Caithness, or an ancient sepulchral barrow), and finding few persons inclined to agree with me in either supposition, I resolved to settle the question by opening it.

"The tumulus, as you know, is not far from the bank of the Moruca, at the commencement of the immense swampy district inhabited by the Waraus and other Indian tribes, which extends northwestward to, and beyond, the delta of the Orinoco.

"The mound is rather more than twenty feet in its present height, gracefully rounded, and with a base of probably one hundred feet in diameter. The reef on which it stands is, like many others found a few miles inland, composed of white sand, mixed with peat or decayed vegetable matter; but, unlike the mound, is destitute of organic remains, as far as our researches have extended. The whole, both reef and tumulus, was covered with forest trees, until the establishment of the mission in 1845.

"Mr. Campbell, the resident catechist and lay reader, commenced operations, at my request, in the beginning of November, by a cutting from east to west of twenty feet in width at the top, to allow of gradual narrowing in the descent.

"The whole mass of the mound, as far as we have been able to dig, consists chiefly of black and whitestriped periwinkle-shells, similar to those found on the surface, with those of crabs, mussels, clams, whelks, etc., in infinite number and variety; the first named (*i.e.* the periwinkle) greatly exceeding all the rest in quantity. Mingled with these are the remains of vertebrate fishes and land animals: the whole presenting the appearance of being the refuse of innumerable meals of some race in former days, when these shell-fish (many kinds of which are now scarcely known on our muddy shores) must have abounded, and Waramuri ridge, now separated by ten or twelve miles of alluvial deposit from the sea, was probably a promontory or an island. The shells, imbedded in the light mould, are seen everywhere on each side of the cutting, in thin layers, which resemble in their closeness the coats of an onion, and indicate by slight streaks or varieties of colour where each successive deposit was spread forth.

"We were unable to go below seven or eight feet in depth. The Indians refused to dig deeper; being unwilling to disturb to any greater extent the *human remains*, which began to be met with about four or five feet from the surface. These bones were found in five or six places; not stretched out either in horizontal or perpendicular positions, but the remains of each person crushed and huddled together in a manner impossible to describe. A fragment of an elbow-

bone, for instance, is found tightly fixed between the spinal vertebræ, and many different parts are welded together, as it were, in the strangest confusion. I have brought away a small box of the most singular specimens of those human remains; also two or three specimens of (apparently) the bones of large fishes; two lumps of hardened red paint, or what the Indians call such; four or five heads of stone hatchets, or rather ancient tomahawks, which must have been inserted in handles of heavy wood; a broken stone with a sharp edge, which may have been used as a knife; and a strange rod, or petrifaction, of a substance heavier than the bones, which was unfortunately broken into four pieces in being dug up. This latter has puzzled all who have seen it. I think it may perhaps be the fossilised fragment of the tail of a gigantic ray; but leave it to others to decide on its nature. No beads nor any kind of ornament were found; neither gold, silver, copper, iron, nor any kind of metal. Small fragments of granite and other stones, such as children at play might throw about, were met with here and there.

"I may add here, that, since the above specimens were dug up, which I have forwarded to you, Mr. Campbell has sunk a small pit several feet deeper. He procured from it the same kind of shells, fish-bones, etc., as were found above; another shattered skull, and other human bones; and, among other little matters, five more lumps of the 'red paint', which he has sent me. The feeling among the Indians, of which I wrote, has compelled him to cease from further excavation.

"The finding of these last human remains so far below the others, and the irregular position and unequal depths at which *all* were found, seemed to show that they must have been placed there at different periods, while the mound was in course of formation.

"Having thus detailed the main facts of the discovery, I ought, perhaps, to make no further remark on the subject. But there is one question which naturally suggests itself, and which has been asked by all who have heard of the above facts or seen the relics:—'How came these human bones to be there buried in the heap of shells?'

"Judging merely from what we have at present discovered, it appears to me that two conjectures might be advanced in reply:—

"1. 'They may have been interred many ages *after* the tumulus had been formed; either immediately after death, or after long preservation of the skeleton above ground, according to the ancient custom known to have been practised by the Indian tribes now existing.'

"The latter supposition is strengthened by the lumps of red colouring matter found near them (for the Indians, when preserving skeletons of their relatives, often painted them red); and it would account for the disjointed condition, and perhaps for the intermingling, of the various parts of each skeleton. But it would hardly account for their irregular positions and depth in the mound, nor for their broken and shattered condition when found. The child's skull and jaw, you will see, have been smashed in by a violent blow, apparently on one side; and all the other skulls were in fragments, of which the few I have selected were the largest. The man's skull is about a quarter of an inch thick, yet it had been shivered like the rest. Many of the bones

were broken in the process of digging; but the edges thus formed are light in colour, while the original fractures, which are far more numerous, have their edges dark, and are distinguished at a glance.

"2. 'The ichthyophagous race who formed that mound, may have had a cannibal feast occasionally, and placed the bones and fragments with their other refuse.'

"The Indians' tradition is, that the man-eating tribes always broke their victims' bones to extract the marrow; and they are inclined to believe that those bones were fractured for that purpose. But none of them know anything of the history of the mound in question, or can throw any light on the subject. It was probably the work of no existing tribe, but of a race long since extinct.

"I merely throw out the above as suggestions, without presuming to decide. We must search deeper. The examination of the remaining portion of the tumulus, by his excellency the governor, will, I am persuaded, do much to render intelligible this, which seems the earliest chapter of the history of the human race in this part of Guiana.

"I venture to predict that similar remains will be found, if sought for in similar positions; viz., some distance inland, where the alluvial deposits, our present swamps, join the rising lands, the original shores of the Atlantic.

"I remain, my dear Archdeacon,

"Faithfully yours,

"W. H. Brett,

"*Superintendent of Indian Missions.*"

Thanks were voted to the authors of the papers, and the Meeting adjourned to the 5th of June.

June 5th, 1866.

Dr. R. S. Charnock, F.S.A., in the Chair.

The minutes of the previous meeting were read and confirmed.

The following new Fellows were announced as having been elected: Professor H. J. Castle, King's College, Strand; Lepel Griffin, Grosvenor Hotel, S.W.; George C. Thompson, Haswell Terrace, Cardiff; W. S. Windham, Carlton Club, S.W.

The following list of presents were announced and thanks were voted for the same: Transactions of the Geological and Polytechnic Society of the West Riding (the Society); Transactions of the Leeds Philosophical Society (the Society); Transactions of the Vienna Imperial Academy (the Academy); E. Darwin, Zoonomia; J. R. McCulloch, Geographical Dictionary; Œuvres complets de Bonnet; Nichol, Handbook for Readers in the British Museum; J. C. Prichard, Researches into the Physical History of Man; Spiegel ü. Windischmann, Erân; Windischmann, Zoroasterische Studien; Schwarzenburg, Alexander v. Humboldt; Atkins, Navy Surgeon; Rev. S. Smith, Unity of the Human Species; J. Grote, Exploratio Philosophica; P. Camper, works of; Boudin, Traité de Géographie et de Statistique medicale;

Bulletins de la Société Ethnologique de Paris (T. Bendyshe, Esq.); Vancouver, Voyage autour le monde; G. A. Cavazzi di Montecuccolo, Istoria descrizione de Tre regni, Congo, Matiemba et Angola (J. W. Conrad Cox); G. Nicolucci, Sulla stirpe japigica (the Author); Worcester, Dictionary of the English Language; C. Knight, Cyclopædia of Geography; T. W. Atkinson, Travels in the Upper and Lower Amoor; T. W. Atkinson, Oriental and Western Siberia; Draper, Human Physiology; J. Haydn, Dictionary of Dates; Dr. Maury, Physical Geography of the Sea; A. H. Hassall, Adulterations Detected; A. Wynter, Curiosities of Civilisation; Lankester, Lectures on Food; the Stars and the Angels (S. E. Collingwood, Esq.); Journal of the Royal Institution of Cornwall (the Institution); cast showing Straton's system of measurement (John Fraser, Esq.); Ormerod, Geological Index; Black's General Atlas; Bernard, Cambridge Free Thought; Gray, Criticism of Darwin (J. Fred. Collingwood, Esq.); The Journal of the Royal Geographical Society (the Society); the Journal of the United Service Institution (the Institution); engraving of a cromlech structure at Tongatatoo (K. R. H. Mackenzie, Esq.)

Mr. MACKENZIE said, I beg to exhibit and present to the Society, as a contribution to archaic anthropology, an engraving of a coral rock structure from a drawing made by the late Mr. Philip Hervey, my uncle, on a visit made by him in company with the ill-fated Mr. Boyd (subsequently murdered in Polynesia) in 1849-50. This structure, which, to some extent, deserves the designation of cromlech, is situated on the south-east coast of the island of Tonga Taboo (lat. 20° 40′ S., long. 175° 40′ W.) It stands alone on a remote coast-bound part of the island, without any other monument or ruin nearer it than the "Cyclopean" tombs of the Tuitongas, drawn in Cook's *Voyages*, as standing on a clear plain, but since his time have become surrounded by a dense jungle, and are only to be reached with difficulty. This monument stands removed from the tombs of the Tuitongas at least eight to nine miles. Not being prepared for the discovery of so remarkable an object in the course of a ramble, Mr. Hervey was unprovided with the means of making an exact measurement, but the following dimensions he stated to be not far from the truth; other visitors may be able, however, to correct these. Upper transverse stone, 24 feet long by rather more than 4 feet deep; uprights 16 feet high, on a depth of 8 feet to 9 feet 6 inches high from front to back. The material is the coral rock or coral reef of the neighbourhood, differing from all the other structures of the island, which are formed of stone imported from Wallis's Island, considerably to the north-west of Tonga. The mortice and fitting of the cross stone Mr. Hervey found to be done with as much care as the rough material admitted, and on the centre of it a small bowl (presumedly for *cava*, the native drink) is scooped out. The building, it should be added, is not adjusted to any particular point of the compass. No historical traditions are connected with it, but it is supposed to be exceedingly ancient. The natives are able to point out the tombs of at least thirty Tuitongas, but nothing is known by them of the origin

of this. They shrug their shoulders, say that a great spirit laid its load down there, and that all the men in the island could not now put it up. An immense tree has grown up at one angle, clasping the corner in its body. Mr. Mackenzie concluded by referring to Mr. Prichard's paper, in the *Memoirs* of the Society (vol. i, p. 208), "On Viti and its Inhabitants", where Mr. Pritchard alludes to this cromlech under the name of "Haamoza-Maui", the burden of Maui, the spirit who had, according to local tradition, brought these stones from Bulotu.

A paper was then read :—

On the Headforms of the West of England, By JOHN BEDDOE, M.D., F.A.S.L. Abstract. [The paper will appear at length in the *Memoirs*.]

Dr. Beddoe, after apologising for his use of the indefinite, yet necessary term "Keltic," stated the object of the paper to be the application to the vexed subject of the Keltic headform of facts derived from the mensuration of the heads of natives of the south-western counties, and of Wales and Ireland. While contending against the prevailing error of attaching undue importance to questions of mere length and breadth, he showed that the prevailing type in all these districts in modern times was dolichocephalic, and applied the term Keltic to a certain type of headform, usually but not always long, and corresponding with the pear-shaped type of Dr. Daniel Wilson, which he (Dr. Beddoe) believed himself to have found in all, or almost all, those countries where the combination of light eyes with dark hair, etc., called by Dr. Barnard Davis "the Keltic eye," was extensively prevalent. He gave some of the data on which his views were based, and in conclusion endeavoured to meet the difficulties thrown in their way by the abundance of brachycephalic skulls in the British portion of the Crania Britannica.

Thanks were returned to the author of the paper on the motion of the Chairman.

Mr. MACKENZIE said the subject of the paper was one of the most interesting sections of anthropology, because it introduced them to anthropology in its living aspect. The investigations were made on living men, and their vital integuments were examined ; therefore, the paper was of practical interest. At one time they saw nothing but skulls on the table, and their researches seemed to be limited to the examination of bones, but he hoped they should in future have more of living anthropology. Viewing the paper as an exemplification of that method of research, he thought it was eminently useful, as leading their inquiries in a right direction. Unless they were very cautious in their measurements all races might seem to be abnormal, and the paper he considered was of great value as showing how to go to work to make accurate measurements of skulls with the skin on them.

Mr. CONRAD COX asked for an explanation of that part of the paper in which the Silurian skull was stated to resemble the Basque

form of skull, and inquired in what respect they resembled. Prof. Broca had found the Basque skulls to be dolichocephalic, but differing from the dolichocephalic skulls found in the Paris cemeteries, in that these last had relatively greater frontal capacity than the Basque skulls. That was an important point, and if Dr. Beddoe's examinations went into that particular they would be very interesting.

Mr. C. CARTER BLAKE differed from Mr. Mackenzie respecting the value to be attached to osteology in the study of anthropology, and contended that the examination of skulls was an important branch of the science. He considered the paper as important and suggestive. It was an appropriate sequel to a former paper by the same author on "The Permanence of Type," and he had that evening stated many facts which bore out in detail the conclusions previously drawn. In the first part of the paper the author objected to the word Kelt as having no definite meaning, but it was a word that must be preserved until some better designation was found. After referring to, and quoting some special cases mentioned by Dr. Beddoe, Mr. Blake proceeded to notice the recent investigations in the barrows of the north, and the contradictions which they gave to the theory that long skulls were found in long barrows and short skulls in round barrows. It appeared that in long barrows short skulls were found, though it might be asserted that those skulls were those of slaves who had been buried at the same time as the chief for whose interment the barrow had been made, somewhat analogous to the mode of interment at Pachacamac. It remained to be seen how far the existing population of the north agreed with that of the west. Mr. Thomas Tate, jun., had discovered some churchyard skulls from Alnmouth of the existing population, and had found them to be intensely brachycephalic. It was difficult to fix points of measurement in the living skull, which rendered such measurements uncertain. That had been alluded to by Dr. Beddoe, and the glabella, which had been referred to as one of the points, was rendered fluctuating, by the precise points of measurements selected. This uncertainty in the points of measurement occasioned great confusion in the measurement of skulls. He dissented from the opinion of Retzius that the *receptaculum cerebelli* was small in Irish skulls; on the contrary, its size, so far as that could be inferred from that of the *probole*, was often very large. Mr. Blake exhibited the "Louth skull" as a proof of this. Mr. Blake, in conclusion, observed that Dr. Beddoe's paper contained many real facts for anthropologists to work on, but he trusted it would be a long time before they proceeded to generalise on such facts.

Mr. HIGGINS made some remarks on the importance of observations on living skulls, and he thought they were very much indebted to Dr. Beddoe for having taken his measurements from living heads. He wanted to know something more about the figures given as the cephalic index of the Swedes and from what part of Sweden those men measured had come, for the measurements did not agree with those taken in Sweden.

Dr. BEDDOE, in replying to the remarks on his paper, alluded to the greater difficulty of measuring a living head than a skull, and stated

that he generally commenced his measurements from the forehead, beginning with the prominence between the eyebrows. He agreed with Mr. Blake that they should not be hasty in drawing conclusions, and he admitted that the facts were as yet very scanty, but he hoped within a short time to be able to enlarge them greatly. With respect to the size of the *receptaculum cerebelli*, on which part of the paper Mr. Blake had made some remark, he said his impression was that in most cases it was small, though not in all. The breadth between the mastoid processes was sometimes very great in Keltic skulls. With regard to the measurements of Swedes, he observed that his measurements were not taken from skulls but from living heads of Swedish sailors in Bristol. They came from all parts of the coast of Sweden. There were thirty of them.

Report of Explorations conducted in the Kirkhead Cave at Ulverstone. By J. P. Morris, F.A.S.L. Abstract. [The paper will appear at length in the *Memoirs*.]

The Kirkhead bone-cave is situated on the brow of a steep hill on the eastern shore of the promontory of Cartmel, and about 85 feet above high-water mark. So far as is known, its dimensions are—length, 40 feet; width, 20 feet; height from surface of deposit, 14, 9, and 7 feet, under three separate domes. The floor of the cavern consists of bones, earth, angular fragments of limestone. and water-worn pebbles of clay-slate, indiscriminately mixed. The principal objects of interest found were portions of human crania, especially of the frontal and parietal bones, human leg and arm bones, and vertebræ. A few inches below the surface was found a Roman coin of the Emperor Domitian; and, at a depth of about seven feet, a stone implement of a rude unground type, and a metatarsal bone of a pig, with an evenly bored circular hole drilled through it. This it was at first imagined had been an amulet. Professor Busk thought that it partially resembled the bone whistles found in the south of France. Two pointed bone implements were also found, and several fragments of rude unbaked pottery. Of the various animal remains met with, the most numerous are the goat, kid, pig, boar, fox, badger, two species of deer, *Cervus elaphus* and *C. capreolus*, and an immense quantity of bones of the wild goose. Of those of which only a few remains are met with, may be mentioned the *Mus rattus*, *Arvicola amphibia*, *Felis catus*, one posterior molar of the horse, two canines and a molar of the dog. The bottom of the cavern has not yet been reached, and several hundred tons of the superficial bone-earth yet require examining. Some time ago, in quarrying stone for an embankment, another bone-cave was discovered in a bluff limestone headland, called Cape's Head, on the western shore of the same peninsula of Cartmel. At the instance of his Grace the Duke of Devonshire, some portion of it was excavated; but the author was not aware of anything important having been found, except a few remains of the smaller *ferœ naturœ*. Being in the neighbourhood in May last, he was induced to examine the place; and, on breaking a piece of stalagmite, he found several fragments of charcoal closely imbedded. This

evidence of the human occupancy of the cavern, led him to visit it again, upon which occasion he found a human humerus in the calcified mould and stalagmite adhering to the sides of the cave; he also found a badger's skull, containing one molar tooth. On a subsequent visit, he found a human malar bone, and several animal remains; and he had no doubt that many interesting objects might be found, should a thorough excavation be made. This cavern, at the present time, is 87 feet long, 15 feet broad, and about 10 feet high.

Mr. SALMON, who assisted Mr. Morris in the exploration of the cave, confirmed generally the statements in the paper. He said it was manifest to anyone who examined the cave, that the contents of the cavern could not have fallen into it from a hole on the top. During the exploration, they had removed about two hundred tons of earth; and the masses of stalagmite were so large, that it was necessary to blast them. He did not pretend to form any opinion as to the age to which the objects found belonged. In the same locality there were many similar caverns, and other records of ancient times; and, if it should be the opinion of the meeting that it was desirable further explorations should take place, it would encourage those who lived in the neighbourhood to persevere in their exertions to explore. He called attention to the flint flake imbedded in the stalagmite, for it was remarkable that there was no flint in the neighbourhood. In exploring the cave, they came upon a large deposit of sea-sand; which showed that the level of the sea must have changed, and that the sea at one time flowed into the cave.

Mr. HENRIQUES thought it was desirable to know the character of the roof of the cave, and its description generally. The position of the objects found should also be considered, as indications of their relative ages. The coin of Domitian found there, showed that one of the objects, at least, was not of great antiquity. The geological character of the cave and the form of the orifice were important, as affording some grounds on which to arrive at a proximate conclusion respecting the period when the various objects were deposited.

Mr. C. CARTER BLAKE remarked, in reference to the character of the supposed flint flake, that it was composed of silex, but he could not say whether it was flint or chert. He asked Mr. Salmon whether there were any deposits of flint in the neighbourhood?

Mr. SALMON replied that there were none.

Mr. BLAKE, in continuation, said that, among the bones found in the cave, there was said to be a fragment of a human fibula, but which was not really so. There was, indeed, not much to be said respecting the human remains. The portion of the skull discovered exhibited high cranial development, and was similar in general character to the skulls found in the graves of the bronze period in Durham. Mr. Thomas Wright, the distinguished antiquary, had looked over the remains now on the table; and he said there was nothing among them more remote than the Roman period, with the exception, probably, of the flint flake. The head was similar in pattern to those found in Italy. The bones were generally identical with those of the

animals now living in the district. There was not among them the bones of any domestic animal; but he hoped it would not thence be inferred that they belonged to a period before the domestication of animals in Britain. The interest of the cave was greater in a geological and palæontological sense than in an anthropological one; for the animal bones found in it were of more interest than the human bones.

Mr. Mackenzie said that, if they looked to the peculiar way in which these objects were found in the cave, they must suppose that they got in both from a lateral entrance and from the top; and it might be accidental that any of the works of man got there at all. His impression was altogether against attaching any value to the contents of these caves. They had not yet attained any scientific result from them, nor had they ascertained the period at which they were occupied; and he thought it would be wise to pause before they drew any conclusions from them.

Mr. Bollaert said that, when chemical assistant in the Royal Institution, and having assisted the late Dr. Buckland, about 1822, in preparing some of the fossil bones from the Kirkdale caves, he attached considerable value to the objects found in the cave at Kirkhead. From the statement of Mr. Salmon, he was inclined to think that, if they were to dig deeper, they would come to larger masses of stalagmite, among which some other interesting relics might be found. He thought it was worthy of the Society's consideration, whether they should not give assistance for making further researches in the cave.

Mr. Salmon explained that they had already pierced through much stalagmite, of which there were three or four large deposits, but they were small compared with the quantity of earth excavated. The rock of the cave was limestone, and there were found within it a number of clay-slate pebbles, though there was no clay-slate in the immediate locality; therefore they could not have got in from the top of the cave, but from its mouth. With respect to Mr. Wright's opinion as to the period to which the relics belonged, that gentleman, in a letter to Mr. Morris, excepted the piece of pottery from the rest, as he was doubtful whether it was Roman.

Mr. Blake added that Mr. Wright had since alluded to it, and said his doubts were whether it belonged to a British or to a late Roman period.

The meeting then adjourned to the 19th instant.

June 19th, 1866.

James Hunt, Esq., Ph.D., F.S.A., F.R.S.L., President, in the Chair.

The minutes of the preceding meeting were read and confirmed.

The names of the following gentlemen, who had been elected Fellows, were announced:—John Stirling, Esq., M.A., Langham Chambers, Portland Place; Charles Rooke, Esq., M.D., F.G.S., Bellevue Cottage, Scarborough.

The presents received since the last meeting were announced as under:—Foster and Topley, Denudation of the Weald (W. Topley, Esq., F.G.S.); The British People (the Author); Nicolucci, Di un antiquo Cranio Fenicio (the Author); Purdon, Deaf and Dumb (T. Bendyshe, Esq.); George Tate, Esq., History of Alnwick (the Author); Thirteen Skulls from India (Dr. Shortt).

The PRESIDENT stated that resolutions had been agreed to by the Council, which would now be read, relative to the formation of branch societies in different towns in the provinces. He had much pleasure in seeing the President of one of the local branches—the Manchester Anthropological Society—present that evening.

The resolutions were then read, as follow:—

Regulations for the Formation of Branch Societies.

1. When ten gentlemen, Fellows of the Anthropological Society of London, residing in any town in the United Kingdom, or British possessions, express a desire in writing to form a Local Branch Society, it shall, on the formation of the same, be entitled to a diploma of recognition, with the consent of the London Council, subject to the following regulations.

2. Each Branch Society shall be governed by a President, a Vice-President, an Honorary Secretary, a Treasurer, and four ordinary members of Council, all to be Fellows of the Anthropological Society of London, the Local Secretary or Secretaries to be officers. Three to form a quorum.

3. The Officers and Council shall be elected annually; all members thereof, except one, to be eligible for re-election.

4. The Council of each Branch Society so formed shall be at liberty to elect such members or associates of the Branch Society as may be thought desirable, the subscription to be paid and the privileges to be received by such members to be regulated by special resolutions of each Branch Society; provided always that at least ten members of the Branch Society be Fellows of the Anthropological Society of London.

5. The voting shall be usually determined by show of hands, or by ballot if demanded by any member of the Council.

6. Two Ordinary Meetings, at the least, shall be held annually, at such times and places as may be arranged by the members of the Branch Society.

7. At the ordinary General and Annual Meeting, the business shall be conducted in the same manner as by the Anthropological Society of London.

8. Reports of the proceedings of each Branch Society shall be forwarded to the Anthropological Society of London, quarterly, half-yearly, or yearly.

9. Such Reports shall be submitted *pro formâ* to the Anthropological Society of London, at one of its ordinary meetings. The Reports, or abstracts thereof, shall be published, subject to the same regulations as those applicable to other communications submitted to the Society.

10. Books, specimens, diagrams, etc., shall be lent to the Branch Societies, on application by the Officers of each Branch Society to the Secretaries of the Anthropological Society of London, subject to special considerations in each case.

11. The Anthropological Society of London will undertake to defray such expenses as may be incurred by its Branch Societies, so long as they do not exceed 25 per cent. of the annual subscriptions received by it from the members of each Branch Society, who are also Fellows of the Anthropological Society of London.

The PRESIDENT observed that the formation of a branch society in Manchester was the first occasion on which an Anthropological Society had been formed in this country out of London; and they might take credit for having given rise to the Manchester society, which he hoped would be the forerunnor of many others. The town of Manchester possessed greater opportunities of promoting the science of anthropology than any other out of London, in consequence of its connection with the colonies, and its means of studying the characters of various races of man. The practical business character of the people of Manchester would also be of great service in studying the science of anthropology, which requires that qualification in its promoters more than any other science. Manchester, he considered, was eminently qualified for the successful establishment of an Anthropological Society; and he hoped that, in pursuing their investigations, they would care only to arrive at the truth, wherever it might lead them.

Mr. GEORGE HARRIS said he felt highly gratified at the reception they had given him, and he responded to the sentiment that the Anthropological Society of Manchester would prove an important one. The connection of the town with the colonies, as also with Germany, and the character of the inhabitants, induced him to have great confidence in the success of the society. The people of Manchester had a great taste for natural history, which was evinced by the fact that they had a collection of objects of natural history which was the best out of London. Some opposition had, indeed, been expressed to the formation of the society, but he hoped it would soon be removed, and that the Manchester Anthropological Society would become important and influential. Several of the large towns round Manchester would probably unite with them. They would be much encouraged in their efforts by the great progress which had been made in so short a time by the parent Society.

Dr. CAPLIN said that in no town was the interest taken in science so great as in Manchester; and he had no doubt that the branch society there would meet with very great success.

Mr. LAMPRAY expressed great disappointment at the sudden and unexpected stoppage of the supply of the *Reader* newspaper to the members; and he desired to know what had occasioned the failure of the arrangement for supplying it.

The PRESIDENT, in explanation, stated that the *Reader* had been taken simply with the view of advertising more extensively the series of works issued by the Society. The proprietors of the *Reader* ex-

pressed themselves willing to supply a copy of their paper to every member of the Society on the condition of receiving weekly an advertisement of a page. It was merely a question of advertising, and it had not been found to promote the sale of the works to the extent that was anticipated. It had been attended with the expense of £6 a week; which, under the circumstances, the Council did not feel justified in continuing.

The President then resigned the Chair to Dr. CHARNOCK, and read the following paper :—

Observations on the Influence of Peat in Destroying the Human Body, as shown by the discovery of Human Remains buried in Peat in the Zetland Islands.. By Dr. JAMES HUNT. Abstract. [The paper will appear at length in the *Memoirs.*]

During the late explorations in Zetland, undertaken for the Anthropological Society, Dr. Hunt discovered a series of wooden coffins in the neighbourhood of a tumulus, which coffins were buried in the peat. One of these coffins was covered by two stones, which bore certain markings, twelve inches of peat, however, intervening between the coffin and the stone. In the majority of these coffins, all traces of the skeletons buried therein had entirely disappeared; from one, however, was obtained a human finger-nail, and from another a skeleton of large size, the integuments of which were preserved, and the bones impregnated with a black peaty substance. In this coffin was found a liquid having the odour of tannin. Dr. Hunt gave an account of the facts which had been previously published regarding the preservation or destruction of human remains by peat; at the same time that he declined to theorise respecting the conditions which had led to the destruction of many skeletons, and the preservation of the one he then exhibited.

Mr. BOLLAERT mentioned instances in which bodies that had been exposed to the action of a current of water had become dissolved; but at the bottom of the coffins masses of fatty matter were found.

Mr. G. HARRIS made some observations on the best mode of preserving bodies, and the peculiar adaptation of certain kinds of earth for this purpose. He then mentioned the discovery of a number of Roman skeletons some years ago, near the ancient Watling Street road, running between Warwickshire and Leicestershire, which had been buried in gravel, and were in an extraordinary state of preservation. He adverted also to the discovery at Bonn of natural mummies, that had been buried in stone coffins; the flesh, though dried up, still remained on the bones. He alluded as well to the long preservation, in the convent of Mont St. Bernard, of bodies that had been found in the snow, as an instance of the resistance to decay offered by cold; also to the coffins of Charles I. and of John Hampden, on the opening of which the bodies were found remarkably well preserved. Dryness and the total exclusion of the air appeared, in these cases, to have been the main preservative causes.

Mr. TATE observed that there was no question about the great pre-

servative power of ice, for it was evidenced by the preservation of the flesh of extinct mammoths; but as to peat it was a different matter, and the observations of Dr. Hunt showed that there were conditions in which peat was not preservative. In Ireland there was generally clay underlying the peat, and then brushwood, and on that the remains of the *Cervus megaceros*, the old Irish deer, were found. The bones thus found were imbedded in peat that was saturated with moisture, and with any fluid matter that might be destructive of animal remains. The question seemed to be one for chemists to decide—whether there is any acid in peat that would destroy animal substance? A wet mass of ordinary peat was well known to be preservative. Thus in the Shetland Islands, the body of a person who had been buried in peat for sixty years, had been dug up, and found to be in a good state of preservation; the peat in that case being very moist. He doubted much whether the coffins in which the human remains were found by Dr. Hunt were of the same date as the bones. Peat-bogs were generally preservative.

Mr. C. Carter Blake, in reference to the remarks of Mr. Tate, asked what was the character of the clay deposit above which the bones of the supposed *Cervus megaceros* had been discovered? He believed it did not belong to any definite age, and that it was not a stag. In the case before them, they had a skull and certain long bones of an individual of great size. The skull afforded some peculiarities. It had evidently been for a long time beneath the earth, and bore marks of posthumous compression, which had altered the normal symmetry of the skull. There were also certain conditions observable in the teeth. It evidently belonged to a short-headed race, and was eight-tenths of a hundred in cranial diameter. If the individual could have been proved to be Scandinavian, he should doubt whether they were a long-headed race, for that was a very short skull. He had also seen Northumbrian skulls, which were supposed to be Scandinavian, and were short; and he was inclined to doubt the popular theory, according to which the Scandinavians were universally a long-headed race. With respect to the geology of the north of Ireland and of the Shetland Islands, there was no resemblance between them; and they were in want of facts respecting the peculiarities of peat in different localities.

The Rev. Dunbar Heath suggested that the remains of clothing found in the coffin should be microscopically examined, and by that means the nationality of the sailors supposed to have been buried might probably be traced. It was well known that the decomposition of human flesh depends on the action of oxygen and the temperature; but he did not see the anthropological bearing of that part of the paper. It was evident that the individuals had been buried in woollen clothes, and it might be curious to ascertain what was the state of bodies when exposed for a length of time to certain conditions, but the paper conveyed no idea of the period at which they had been buried, nor of their nationality; and these he considered were the whole points of interest in the subject.

Mr. Mackenzie observed that some evidence as to the age of the

bodies might be obtained from the stitches in the clothes, which were distinctly to be seen. He thought that some fuller description was required of the other coffins, besides the one in which the bones were found. From the circumstance of their being placed irregularly, he considered that the place had not been a regular burying ground.

Mr. NAPIER alluded to the discovery of several skeletons in Stirlingshire, about thirty years ago, that were buried in peat, and were associated with bronze celts and other bronze implements. The skulls were long, and not those of short-headed individuals. With regard to the length of Scandinavian skulls, he stated that the heads of most of those he had measured were of a medium kind, neither long nor short; the measurements being about seven inches and a half long, and from five inches and seven-eighths to six inches and a quarter wide.

Dr. CAPLIN referred to some instances of the preservation of human bodies in France, especially to that of Henry IV, which was found in a perfect condition when the coffin was opened, sixty years after his death.

Mr. HIGGINS considered the investigation of the influence of peat in preserving or destroying human bodies was decidedly an anthropological question. They had the fact stated of the disappearance of human remains from most of the coffins; and it was important they should investigate the cause of their destruction, as it might throw a light on the evidences of the antiquity of man. From the remains of the clothing, it might be assumed that they belonged to the present century. The disappearance of human remains, he thought, depends much on the motion of water, and that, if the water with which bodies are in contact is stagnant, it will tend to preserve them.

Mr. NAPIER said that his observation of Scandinavian heads was confined to the examination of the heads of Swedish seamen in Bristol, the smallest of which were about seven inches long, and the breadth five inches and six-eighths. He had measured the skulls of twenty Scandinavians, obtained from those portions of that country where the inhabitants were clearly of Scandinavian origin.

Dr. CHARNOCK said that the property of peat to preserve human remains might depend upon the variety of peat in which they were found. He believed that common peat was a composition of the branches, twigs, leaves, roots of trees, etc., and that it might have the property in question from containing tannin. There was, however, another sort of peat, found in Scotland, Germany, and Holland, called "Scottish or German peat", a substance of a yellowish-brown or black colour, which consisted of clay mixed with calcareous earth and pyrites; and it was possible that this variety might not have a preservative property.

Mr. CARTER BLAKE said he should like to know what was the modulus of the transverse breadth of Scandinavian skulls according to Mr. Napier's theory. First he had stated that it was five inches and a half, next six inches and six-eighths, then six inches and one-eighth, and lastly five inches and six-eighths.

Mr. R. TATE. Order!

The PRESIDENT, in reply to the observations on his paper, said his

object had been simply to communicate a fact, the observation of which he believed was unique, that there is a destroying power in some kinds of peat on the human body. In all previous cases, peat had been considered a preservative. In this case, however, there were the remains of a human body found in a coffin among other similar ones which contained nothing, and respecting which the opinion prevailed that they were chests wherein treasure had been buried; and it was not until they had opened several, that they had found a single trace of a human body. As soon, however, as Dr. Hamilton found a finger-nail in one of them, he gave up his theory that the coffins were merely chests. It was a subject of the greatest interest to know where human bodies were to be found. In one case, a man had been buried, but not a trace of a skeleton was to be found; yet an impression of his face remained when all the integuments of the human body were gone. Vegetable substances, which had been buried at the same time, were as fresh as at the present day. All the coffins were found near each other, and within a few inches only of difference in their levels, there are great varieties of peat, varying in quality with the vegetable substances of which they are composed. He hoped that the paper would prove that in some cases, at least, bodies that had been buried perhaps only thirty years had disappeared.

The PRESIDENT then read the following paper, which was a sequel to the foregoing one :—

On the Interpretation of some Inscriptions on Stones recently discovered in the Island of Brassay, Zetland. By Dr. JAMES HUNT. Abstract. [The paper will appear in the *Memoirs.*]

The stones mentioned in the above paper were described by Dr. Hunt. The markings thereon were considered by Dr. Charlton, of Newcastle, to be, one a compound rune, spelling the letters TNYR, the other an Ogham letter B. Principal Barclay, of the University of Glasgow, considered them combined runes, each spelling the word Teit or Tait. Professor Stephens, of Copenhagen, considered them not to be runes, but "runic bo-marks," monograms, or masons' marks, one of the characters possibly representing an anchor. Dr. George Moore, of Hastings, considered them monograms formed of Runic characters united, the signification being in each case Danr or Dany. Dr. Pruner-Bey, of Paris, interpreting them as Phœnician, read one of them as *siz* (town) or *sous* (horse). Dr. R. S. Charnock considered one to spell *dad* or *tat*, and the other *dadda* or *tatta*. The specimens will be deposited in the Museum of Scottish Antiquaries.

The thanks of the meeting were voted to the President for his two communications.

Dr. CAPLIN asked what name would be denoted if the inscriptions were reversed?

Dr. CHARNOCK: They would have no meaning at all.

Mr. MACKENZIE adverted to the interpretations by the members of the "Pickwick Club" of the mysterious-looking inscription on a stone submitted to them, and he compared the various interpretations of the meaning of the marks on the stones over the coffins which had

been rendered by the gentlemen to whom they had been shown, to the ingenious interpretations given by the members of the "Pickwick Club" to the imperfect cutting in stone of "John Snooks, his mark."

The Rev. DUNBAR HEATH thought the matter to be of considerable interest and importance. With respect to the differences between the letters T and D, he could well understand that they might be mistaken one for the other. It would seem probable that the marks denoted the name of the man buried, and it was a fact of interest that the Runes were formerly in that part of Scotland.

The PRESIDENT stated that the second paper originally formed part of the first one, but he had subsequently divided it into two, and he was glad that Mr. Heath found the latter part of the paper at least to be interesting. If the characters were Runic, he must say that he did not find anything like them in Maes-how, and that nothing Runic had been found in Shetland before.

On the Resemblance of Inscriptions found on Ancient British Rocks with those of Central America. By Dr. BERTHOLD SEEMANN. Abstract. [The paper will appear at length in the *Memoirs.*]

Referring to the discoveries which had been made in Northumberland and on the Eastern borders, and which had been described by Mr. George Tate in his work on the subject, and after giving an abstract of Mr. Tate's views, the author pointed out that thousands of miles away, in a remote corner of tropical America, we find the concentric rings, and several others of the most typical characters engraved on the British rocks. These he had himself discovered, and had more than once described. He considered them to resemble Mr. Tate's specimens so closely, that when the plates of that gentleman's work were first shown to him (and he was quite ignorant to what country they related), he fully believed them to represent Veraguas inscriptions. He gave five examples of Veraguas markings, each of which he considered resembled a corresponding figure in the British inscriptions. Both were incised on large stones, the surface of which had not previously undergone any smoothing process. The people who were found in the district, probably the Dorachos or Dorazques, had also made considerable progress in sculpturing columns, and placing on them raised characters. But as these required far more artistic skill than incised characters, and denoted a higher degree of civilisation, Dr. Seemann considered that the incised characters were by a different, less civilised, and more ancient race than those who sculptured the characters in relief. After describing the famous *piedra pintal*, near the town of David, the author concluded by pointing out that could identity be established between the rocks of Britain and Veraguas, the legitimate speculation might be indulged in, that in prehistoric times connection existed between Europe and America, when the island of Atlantis—in the hands of modern science no longer a myth—intimately connected both.

The thanks of the meeting were given to Dr. Seemann for his paper.

Mr. BOLLAERT observed that he did not see any resemblance be-

tween the British characters marked on the stones and those of Veraguas. Between the first ones there was no trace of resemblance whatever; the second were equally unlike; the concentric circles of the third were a form of cutting to be found all over the world; and, as to the fourth, he was surprised that Dr. Seemann should have tried to advocate a resemblance, for it was purely figurative. He was sorry that Dr. Seemann should have alluded to the ancient romance about the connection between the Old World and the New. For his own part, he had failed to trace the least resemblance between them, for everything there was peculiar to the New World and to the red man.

Major Owen was of opinion that, if they found the same things in the Old and New World, represented by similar characters, it was evidence of former connection.

Mr. Mackenzie concurred with Mr. Bollaert in thinking that the red man was the creator of his own state of civilisation.

Mr. Harris conceived that the similarity of traditions in India and South America indicated that there had been some connection between the Old World and the New. He mentioned that there exists in Britany many perfect ancient sculptures and inscriptions. A great number of them had been destroyed by the missionaries, who considered them as relics of paganism; but in an island near one part of Brittany, which is very difficult of access, and which the missionaries had not visited, there is a perfect Druidical temple, and many curious sculptures. The inscriptions on the stones were very remarkable, and well deserved examination. He considered Brittany to be one of the most interesting countries on the continent, though seldom visited.

Mr. Ralph Tate said that Dr. Seemann might be right after all, and the people of the Old and New World might be identical.

The Rev. Dunbar Heath agreed with Mr. Bollaert in thinking that there was no resemblance between the inscribed stones of the north of England and those figured by Dr. Seemann.

The following paper by Dr. Bower was taken as read:—

On the History of Ancient Slavery. By Dr. John Bower. (Communicated by Mr. W. Bollaert.) Abstract. [The paper will appear at length in the *Memoirs*.]

In a paper of great length, the author described the circumstances under which slavery was practised among nations of antiquity—under the Hebrew, Greek, and Roman polity. He gave copious extracts from ancient authors, and entered into detail respecting the legal rights of slaves and masters, the clothing, food, and social life of slaves and freemen, and the terms used to discriminate between the various descriptions of emancipated slaves.

The President, having resumed the Chair, said there was one other paper on the list, "On the Influence of Blood-Relationship in Marriage", by Dr. A. Mitchell. It was a very valuable paper, and would be printed in the Society's *Memoirs* at length, and a discussion on it would take place at some future meeting. They had now arrived at the end of the session, and he wished to announce that the Council had decided to form a special fund for the purpose of carrying on original researches in archaic anthropology, under the title of the

"Anthropological Exploration Fund". In Orkney, the local Secretary, Mr. G. Petrie, whose report on the Brochs and Picts' houses of that locality was recently laid before the Society, intends to continue his investigations should funds be provided for him. In Caithness, the interest which has recently attached to the examination of the *bonâ fide* prehistoric remains for that country is unabated; and Mr. J. Anderson, local Secretary of the Anthropological Society of London, and Mr. R. I. Shearer, only wait for funds to continue the investigations which they commenced some time ago. In Dorsetshire there exists a large number of barrows which have never yet been examined, and it was proposed to devote a portion of the fund to that purpose. It was thought to be very advisable that the theories which have recently been promulgated respecting "long barrows" should be put to the test by an examination of some of the well preserved "long barrows" which exist in this country. The authorities in Belgium, who act under the orders of the Belgian government, have invited some members of the Anthropological Society to take part in the important explorations near Dinant, where bone-caves have been opened, containing remains of extinct animals, chipped flints, and human skulls and bones, of varied and peculiar nature. The Council were anxious, in the first place, to depute Mr. C. Carter Blake to make a report on this subject. The Society had given £100 for promoting these objects; several members had contributed individually to the fund; and by appealing to the public, and by the aid of other scientific societies, he hoped that a sufficient sum would be raised to complete the proposed investigations satisfactorily. He had only further to announce that he had undertaken to direct the application of the fund, and he should be happy to afford any information respecting the nature of the researches to be undertaken. A new volume of their *Memoirs* had been printed, with the exception of two papers, and it would be shortly issued to the members. A catalogue of the books in the library, and a list of the specimens in the museum, were also nearly ready; and he thought it would surprise some of their members to see what a valuable collection they had amassed in so short a time. The President further remarked, that a deputation from the parent Society would be present at the opening of the Anthropological Society of Manchester, of which Dr. Fairbank was secretary; and he looked with great interest to their future success. In conclusion, the President said that he much regretted the non-arrival of Mr. Pritchard's report as to the anthropological causes of the negro insurrection in Jamaica; but he had little doubt that, when presented, it would be read with greater satisfaction than the report of the Commissioners sent by the Government.

The meeting then adjourned to the 6th November next.

INDEX.

Africa, Implements and Articles of Dress, cii
Anderson, J., Report on Ancient Remains at Caithness, cxxx
——— on Human Remains at Keiss, clii
Anthropological Types, permanence of, xviii
——— investigations at Smyrna, xcviii
Anthropology of New World, clxxi
Ardagh, Lieut., on a Kjökkenmödding at Newhaven, clxxxvii
Atkinson, H. G., on Idiotic Family from Downham, xxxi
——— on Australian Skulls, xxxi
Baines, T., on Implements of Dress from South Africa, cii, cxiv, clxxxiv, clxxxv
Beavan, H. J. C., lix, xc, xcviii
——— on the Inhabitants of Spain, xcii
Ballard, Dr., xxiii
Baxter, J. B., clxxiii
Beddoe, J., on the Permanence of Anthropological Types, xviii
——— on the Head-form of the West of England, cxcix
——— xxi, cc
Beigel, Dr., xxx, xlvi, lxxxi, lxxxiii, cxiii, cxvii, clxxx, clxxxii
Bendyshe, T., cxiii, cxix, cxx, cxxvii
Birmingham, papers at, ii
Blake, Carter, Report on Papers at British Association, iv
——— on Simious Skulls, cxxvi
——— on Animal Remains from Newhaven, clxxxvii
——— xv, xx, lxxxiv, lxxxvii, cxiii, cxxvi, cxxvii, cxxix, cxxxvi, clxviii, clxx, clxxiv, clxxx, clxxxi, cc, ccii, ccvii, ccviii
Blood-relationship in Marriage, ccxi
Bollaert, W., on Maya Alphabet, xlviii, lxiii, xcvii, xcviii, cix, cxxiv
——— Anthropology of New World, clxxi, clxxv, cciii, ccvi, cex
Bonwick, J., iv
Bower, J., History of Slavery, ccxi
Brabrooke, lviii
Branch Societies, cciv
Brett, Rev. W. H., on a Tumulus at Essequibo, cxcv
British Association, papers at, ii
Brochs and Picts' Houses at Orkney, cxxx
Brookes, H., cxxii, cxxiv, clxxvii, clxxviii, clxxxv
Bunu Tribe of Central Africa, cx
Burke, L., xiv
Burton, Captain, on a Hermaphrodite, clxxv
——— on a Kjökkenmödding at Santos, Brazil, cxciii
Caithness, Remains of, ccxxxix, cxxxi
Callaway, on Hybridity at Natal, cxxxvii
Cannibalism in Europe, xxii
Caplin, Dr., xiv, xx, xxx, lix, clxxxvi, ccv, ccviii, ccix
Chambers, C. H., xcviii
Charnock, Dr., on Cannibalism in Europe, xxiii
—— xlv, xcii, cxv, clxix, ccviii, ccix
Clarke, Hyde, on People inhabiting Moravian Wallachia, xc
—— on Anthropological Investigations in Smyrna, xcviii
Cleghorn, J., a new Reading of Shell-mounds and Graves in Caithness, cxxxix
Collingwood, J. Frederick, cxxiii
——— S. Edwin, xxi, cxciii
Council, report of, xlix
Cox, J. W. Conrad, cxxiii, cxcix
Dibley, G., cxxiii
Down, Dr. Langdon H., cxxiv, clxxxi, clxxxii
Essequibo, Tumulus at, cxcv
Gallinas people, lxxiii
Gay, D., cxxi
Genealogy in connection with Anthropology, lxxxv
General Meeting, report of, xlix
Gibb, Dr. G. D., xxxiii, cxxvi
Gnosticism, Indian, clxxxiv
Goldsmid, A., lxxxviii
Harris, J. M., xxi, lxxxiv, cxii
——— on the Gallinas of Sierra Leone, lxxxii
Harris, G., ccv, ccvi, ccxi
Head-forms of West of England, cxcix
Heath, Dunbar, on the Primary Anthropoid Origin of European Races, xxxiii
——— lix, lxxxiii, lxxxvi, cxvi, cxxxvi
——— xlvii, cxxi, clxxii, clxxvii, clxxxv, cxciii, ccvii, ccix

Henriques, A. G., lviii, ccii
Higgins, A., on the Orthographic Projection of the Skull, cxx
——— cxxiv, cxxvi, cxxvii, clxix, clxx, clxxxv, cxciii, cc, ccviii
Hindu Neology, clxxvii
Hunt, Dr., xiii, xiv, xvi, xix, lxxxvi, lxxxix, cviii, cix, cxii, cxiv, cxvii, cxxx, cxxxiv, lxvii, clxix, clxxii, clxxv, clxxviii, clxxxi, clxxxiii, clxxxiv, clxxxvi, cxcii, cxciii, ccv, ccviii, ccix, ccxi
——— on the Archaic Anthropology of the Zetland Isles, xv
——— President's Address, lix
——— on the Keiss Graves, clxiii
——— on Influence of Peat in destroying Human Body, ccvi
——— on the Interpretation of Inscriptions on Stones in Brassay, ccix
Iconography of Skull, cxx
Implements, forms of, clxxxiii
Inscriptions on Stones at Brassay, ccix
——— at Veraguas, Central America, ccx
Jackson, H. W., lviii
Keiss, Human Remains at, cxxxix, cl, clvii, clxiii
Kirkhead Cave, Ulverstone, cci
Kjökkenmödding at Newhaven, clxxxvii
——— Santos, cxciii
——— Essequibo, cxcv
Lampray, ccv
Lee, R., xv, xxi
Macclelland, J., lxxxi
Macdonald, W., clxxix, clxxx, clxxxiv, clxxxv, clxxxvi, cxciii
Mackenzie, K. R. H., cxxvii, clxxii, clxxvii, clxxxvi, cxciii
——— xiii, xvi, xxx, lix, lxxxvi, lxxxvii, cxiii, cxcviii, cxcix, cciii, ccvii, ccix, ccxi
Manchester Anthropological Society, cciv
Marshall, G. W., on Genealogy in connection with Anthropology, lxxxv, lxxxviii, xcvii
McHenry, G., cviii
Mill, cxiii
Milligan, Dr., clxxi
Microcephale, living, clxxxi
Mitchell, Dr. R., Blood-relationship in Marriage, ccxi
Moravian Wallachia, xc
Morris, J. P., on Kirkhead Cave, cci
Müller, Max, xlvi, xlvii, xlviii
Mute Origin of European Races, xxxiii
Napier, C. O. Groom, xx, ccviii
Nash, D. W., xxiv, vii
Newhaven, Kjökkenmödding at, clxxxvii
Nicholls, G. J., xc
Orthographic Projection of Skull, cxx
Owen, Professor, clxxxvii
Owen, Major, S.R.I., lviii, lxxxiii, cviii, clxxix, clxxxi, clxxxv, ccx
——— on Hindu Neology, clxxvi
Petrie, G., on Brochs and Picts' Houses in Orkney, cxxx
——— on Human Remains at Keiss, cli
Pike, L. O., xlv, cxviii
——— on the Psychical characters of the English People, cxiv
Peat, Influence of, ccvi
Pinkerton, J., lxxxi, clxxxv
President's Address, lix
Pritchard, W. T., xlviii, lxxiii, lxxxiv, lxxxviii
Psychical Characters of English People, cxiv
Reddie, J., xlv
Robins, T. V., on the Bunu Tribe of Central Asia, cx, cxiv, cxxiii
Ruffières, C. R. des, lxxxi
Santos, Kjökkenmödding at, cxciii
Sacti Puja, clxxxii
Salmon, W., clxxviii, ccii
Sellon, E., on Sacti Puja, clxxxii
Seemann, B., on the resemblance of inscription in Veraguas with those of Northumberland, ccx
——— xlv, lxxxii, xcvii, cviii, cxvi; xvi, xx, xxx, xcviii
Shearer, R. I., on Caithness Remains, cxxxi
——— on Human Remains at Keiss, clvii
Shortt, on a Living Microcephale, clxxxi
Simious Skulls, cxxvi
Skues, Dr. Mackenzie, clxxi
Slavery, History of, ccxi
Smyrna, anthropological investigations at, xcviii
Spain, inhabitants of, xcii
Sterility of Savage Females, clxxix
Tate, R., on Zetland Anthropological Exploration, xvi, xvii, cxxxv, ccvi
Topley, W., on Kjökkenmödding at Newhaven, cxcii
Tupper, Captain A. C., cxxviii
Walker, Beauchamp, on Kjökkenmödding at Newhaven, clxxxvi
Walker, xix
Walker, R. B. N., xcii
——— Sterility of Savage Women, clxxix
Wesley, W. H., on the Iconography of the Skull, cxx, cxxvi
Westropp, H. M., on Analogous Forms of Implements, clxxxiii
Wilson, A., lix
Zetland Isles, Archaic Anthropology of, xv, xvi